



amateur radio

Vol. 35, No. 12
DECEMBER
1967

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ACX50	8 in.	30-22,000	15 watts	\$23.75
10CX50	10 in.	25-22,000	20 watts	\$36.00
12TX50	12 in.	15-22,000	25 watts	\$52.50
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CONTENTS

Technical Articles:—

A Printed Circuit Transistorised S.s.b. Generator	9
Converting A.W.A. Low-Band Carphones for 6-Metre Opera- tion	3
Errata: VK3 V.h.f. Converter	20
Modification of BM3 Mike for Switch-to-Talk Operation	8
More Transistor Sideband	5
Rhombics and Chaos	11
Transistorised 2-Metre F.M. Transmitter	13

W.I.A. Federal Executive:—

Federal Comment:	
Federal Organisation of W.I.A.	2
I.A.R.C. Annual Convention	2
Region III. and South-East Asia	21

General:—

A.R.R.L. Technical Merit Award ..	17
Book Review:	
"The World of Mr. Sheraton"	8
"World at Their Finger-Tips"	8
Index to Volume 35—1967 ..	28
New Call Signs	14
Obituary	23
Prediction Charts for December 1967	10
W.I.A. D.X.C.C.	19
Worked All Victorian National Parks Award	17
Worked From All Victorian National Parks Award	17

Contests:—

Contest Calendar	19
John Moyle Memorial National Field Day Contest, 1968	15

Notes:—

DX	19
Federal and Divisional Monthly News Reports	21
SWL	18
VHF	20
Youth Radio Scheme ..	10

W.I.A. OFFICIAL BROADCASTS

NEW SOUTH WALES		QUEENSLAND	
VK2WI, Sundays, at 1100 hrs. E.A.S.T.	3590 Kc.	VK4WI, Sundays, at 0900 hrs. E.A.S.T.	3590 Kc.
3595 Kc. a.m.	145.130 Mc. a.m.	7146 Kc.	144.36 Mc.
7146 Kc. a.m.	148.000 Mc. f.m.	14.342 Mc.	
53.666 Mc. a.m.	(53.950 Mc. f.m. proposed shortly)	SOUTH AUSTRALIA	
		VK5WI, Sundays, at 0900 hrs. C.A.S.T.	3.5, 14, 52 and 144 Mc. bands.
		WESTERN AUSTRALIA	
		VK6WI, Sundays,	
		TASMANIA	
		VK7WI, Sundays, at 1000 hrs. E.A.S.T.	3672 Kc., and re-transmitted by representative stations on—
		7146 Kc.	144.1 Mc.
		53.032 Mc.	432.6 Mc.

FEDERAL ORGANISATION OF W.I.A.

Last month a series of news items appeared on Divisional broadcasts and in "A.R." which referred to Federal matters. What is the Federal set-up of the W.I.A.? Broadly speaking, the situation under the existing constitution is this. Each Division appoints a Federal Councillor, who represents that Division's views at the annual Federal Convention of the W.I.A., held over Easter. At this Convention, W.I.A. policy for the coming year is determined, by all Divisions exercising one vote each, and voting on motions which had been submitted prior to the Convention. These motions having been previously discussed by all Divisions at Council meetings and general meetings, the Federal Councillor carries to the Convention his Division's voting instructions and exercises a vote on behalf of his Division. If there is a simple majority of votes in favour, then the motion is passed and becomes part of Institute policy. However, minutes of the Convention are prepared and circulated to all Divisions after the Convention and the vote of their Federal Councillor is ratified by each Division. It is becoming common procedure for Divisions to instruct their Federal Councillor to vote "at his discretion," and later ratify that vote. This allows for an open exchange of views between delegates, and allows the Federal Councillors to change their views on any matters, having listened to the points of view expressed by other States.

Following the Convention, the task of implementing W.I.A. policy falls to Federal Executive. This body consists of seven voting members, and several co-opted officers. It has been traditional for the personnel of Executive to be appointed from the Headquarters Division—that is the Division in which the Central Office of the Postmaster-General's Department is situated. This has been Victoria for some time, and thus the Divisional Council of the Victorian Division appoints Executive each year. These appointments are circulated to the Divisions for acceptance, and nominations are made to the offices of President, Secretary, etc.

What tasks do the members of Executive undertake? Generally these can be summed up in the three words **representation, liaison and administration**. Executive **represents** the whole Australian Amateur Service to outside bodies; especially to the regulatory bodies—the P.M.G.'s Dept., the I.T.U., etc. This representation is also often on behalf of a particular State, or an individual Amateur. The **liaison** undertaken is between the six States, and also between overseas Amateur Societies, the I.A.R.U., etc. **Administration** concerns Executive in the fields of contests, awards, QSL, SWL, YRS, etc., much of this activity being undertaken by co-opted officers.

All these activities are financed through the "per-capita" payments made each year to Executive by Divisions. Each Division contributes a lump sum based on total membership at the rate of 30 cents a head. This payment gives financial standing to a Division at the annual Convention and allows its vote to be exercised. In addition to this money, there is the I.T.U. Fund. This is in the nature of a trust fund for the sole purpose of sending a representative to a conference of the I.T.U. which may be discussing Amateur frequency allocations.

One implication of all this is that if you, the individual member of W.I.A., feel that you have some aspect which is causing concern, then send details to your Federal Councillor. These will be discussed and a Federal Convention motion drafted, circulated to all Divisions, and eventually discussed and voted on in Sydney next Easter. This is the time of year for submitting items for the Federal Convention. Do you have any? (Practically all items submitted to the Hobart Convention this year have been dealt with by Executive, and we will be giving details in forthcoming news releases.)

I.A.R.C. ANNUAL CONVENTION

The convention of the International Amateur Radio Club was held in Geneva over the week-end of 23rd and 24th September this year. Some details of events there have been received by Executive, both directly from I.A.R.C. and from the I.A.R.U. Region I Committee. A word of explanation; there are at least two important International Amateur Radio organisations which both Amateurs should be concerned.

Firstly, the I.A.R.U., which is an international organisation of **Amateur Societies**, with its present headquarters with ARRL in the U.S.A.

Secondly, the I.A.R.C., which is an international organisation of **individual Amateurs**, with its headquarters in Geneva, Switzerland, and with the well known Amateur Station 4U1ITU.

Both these organisations have as an ultimate aim the encouragement, maintenance and preservation of Amateur Radio, but they go about this in different ways. I.A.R.U. and I.A.R.C. are **not** in competition, members of I.A.R.C. are office-bearers in I.A.R.U. regional organisations, and also office-bearers in national societies such as ARRL, R.S.G.B., W.I.A., etc. Hence the liaison between I.A.R.U. organisations and I.A.R.C. is obtained in this personal manner, as well as on a formal level as between I.A.R.C. and I.A.R.U. member societies. (As a member of W.I.A. you have a connection with I.A.R.U. because W.I.A. is a member country of the Union, however you can join I.A.R.C. as an individual Amateur for the fee equivalent to \$US5 (I.A.R.C., Box 6, CH-1211, Geneva 20, Switzerland), just as members of Federal Executive and Federal Councillors have joined as individuals.)

I.A.R.U. states as part of its objectives, "... the effecting of co-operative agreements between national Amateur Societies ... on matters of common welfare." The President of I.A.R.C. has been quoted as saying, "I again wish to state emphatically and clearly, that we have always opposed any attempt to compete with national organisations or the I.A.R.U. The I.A.R.C. is not an instrument to perform duties which are incumbent upon those institutions. We see our aims in doing something for our hobby which can be done more easily by us than the I.A.R.U. We are at a somewhat different level, but have exactly the same feeling for the development of Amateur Radio as all national associations and their co-ordinating bodies have."

The I.A.R.C., being located in Geneva, has a unique opportunity to liaise with the officials of I.T.U., and with delegates to I.T.U. conferences. In fact, as stated in last month's "A.R." the World Maritime Mobile Conference has been held in Geneva this year, and the Secretary-General of I.T.U. (M. Mohamed Mill) held a reception for the heads of delegations and invited representatives of the Amateur Service. M. Mill has consented to become Patron of the I.A.R.C. and he attended the opening of their Annual Congress, at which he delivered an address. His concluding comments are worthy of note:

"... Your movement is therefore a magnificent one which brings men closer together—a movement which, in addition to its contribution to scientific progress, ... fosters the fraternalism which is the very basis for the maintenance of peace.

"Yesterday I happened to read an article written by one of you, Mr. Peter Schroder. It was written in 1957—just ten years ago—and published in the I.T.U. Telecommunication Journal in January 1958. In that article, Mr. Schroder attempts to define the aims of the Amateur Radio movement and in conclusion, I cannot do better than repeat two sentences at the end of the article which, in my opinion, provide a perfect definition of your movement. This is what the author said: 'One of the most significant aspects of the I.A.R.U. lies in its role as a force for world peace and understanding. It has already been noted that the furthering of international fraternalism was a stated objective of the Union, and to this aim it has consistently adhered since the organisation was first devised a quarter of a century ago.'

(Continued on Page 13)

Amateur Radio, December, 1967

MORE TRANSISTOR SIDEBAND

COL HARVEY,* VK1AU

WHILST the circuits published in "A.R." Feb. 1967 worked well enough, further fiddling produced some improvements which are worth considering for any similar project.

MIXING

Because the conventional transistor mixer was somewhat critical in respect of injection voltage, and produced an undesirably large amount of the injection frequency in the collector load, many alternative types of mixer were tried. The simple double diode mixer, rejected initially, because it looked too simple to be effective, when tried, turned out to be the equal of any transistor mixer which had preceded it! It was also cheaper, smaller and easier to install. The revised circuit appears at Fig. 1.

DIODE MIXER

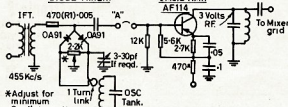


FIG. 1.

If R1 is removed, gain and distortion rise, therefore choose a compromise value. About 1/2 volt r.f. is all that is needed across the balance potentiometer, and 1 volt across the i.f. transformer secondary. Too much oscillator r.f. may prevent balance. Note that the emitter resistor should be 2.2K and not 2.7K as shown. Also the supply voltage is 12V.

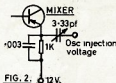


FIG. 2.

Notation for Fig. 2.—Although the 0.003 μ F. by-pass capacitor would appear to shunt the injection voltage to ground, VK1AS reports increased conversion gain, and a need for considerably less injection voltage.

Fig. 3a.—By adjusting the emitter resistor slider upwards, the stage gain can be increased to the level desired, or to a point which just precedes regeneration!



FIG. 3a.



FIG. 3b.

The original mixer transistor has become a 9 Mc. amplifier which (with full carrier) now provides about 3 volts of r.f. at the collector. By using a miniature 1K pot. in the mixer, it was easy to mount the diode mixer and its amplifier in the space previously occupied by the transistor mixer alone.

VK1AS experimented along similar lines in his transmitter and reached the same conclusion. But later, in developing his receiver mixer, he found the circuit at Fig. 2 advantageous.

For those using conventional emitter injection mixers, it may be worthwhile to try varying amounts of emitter by-pass capacity, before deciding upon Fig. 1.

INSTABILITY

In the case of VK1AU's exciter, the extra output from the latest mixer board (Fig. 1) caused some minor difficulties with regeneration, which became noticeable when the linear amplifier was in use. The classical cures of resistance damping, and/or neutralisation were unattractive due to the adverse effect on the r.f. drive level to the linear, and mechanical difficulties. Fortunately, there is a solution, so simple that it shouldn't work—but it does.

Again, a miniature pot. allows the modification to be done on the original matrix board. This method provides better flexibility than that provided by a fixed resistance in series with a by-pass capacitance—Fig. 3b.

Slight regeneration can be hard to identify. Large amounts will always

"spiky" with no residual thickening of the time base on speech peaks.

Up to 1" of flattening of peaks (on a 5" c.r.o.) seems to be unnoticed in listening tests on the wanted sideband. However, excessive flat-topping is best recognised by the increase in monkey-chatter (i.e. distortion products) appearing on the unwanted sideband as the amount of flat-topping is increased. For this reason alone, it is best to adjust stage-gains (and audio and r.f. peak limiters) so as to avoid more than a small amount of visible flat-topping. So far as residual carrier is concerned, listener reports remain favourable unless the c.r.o. time base shows more than a thickening of about 1/4".

V.F.O.

Since the original exciter was submitted, a transistor 1.7 Mc. v.f.o. has been added, based on the "Electronics Australia" circuit of Jan. '67. Intending constructors can be confident of plenty of output, with stability to match.

Worthwhile alterations are the mounting of the v.f.o. transistor in a heat sink—a 1" square aluminium rod bolted to the matrix board, with a transverse 1/4" hole, into which the transistor case of the AF114 "plugs", thus eliminating mechanical and thermal instability. The other alteration is a series trap in the v.f.o. amplifier collector circuit to reduce a troublesome v.f.o. fourth harmonic, which (by bad choice of frequencies) fell on the high end of the 7 Mc. band and appeared as carrier which could not be fully suppressed.

If it is desired to use PNP transistors such as the AF114 as I did, rather than the NPN BA102 and BC108s specified in "Electronics Australia," simply reverse the power supply polarity (e.g. by use of a separate battery).

POWER SUPPLY

Initially, the exciter was run from a so-called voltage "doubler" supply, fed from a 6.3 volt filament winding (Fig. 4). A surprising amount of capacitance was needed to remove ripple from a voltage doubler supply. In my case, 1,500 μ F. was barely enough.

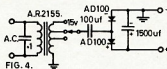


FIG. 4.

Again the effect shows well on the c.r.o., which displays a definite 100 c.p.s. component superimposed on the residual carrier. This shows as a thickening of the time base, or at low sweep speeds, as an unsynchronised and distorted wave form drifting along the time base, which cannot be eliminated by operation of the carrier balance controls.

At low current drain, voltage doubling (and almost tripling) does indeed take place. However, on heavier loads

appear as unsuppressible carrier, accompanied by sluggish action of the linear plate mA. meter.

The effects of regeneration can best be seen on an oscilloscope. If the time base frequency is first chosen so as to display an easily identifiable audio pattern, regeneration will be seen as a "blurring" of the r.f. pattern, generally accompanied by a rise in amplitude of the pattern immediately adjacent to and along the horizontal time base. Close examination suggests that this is carrier re-insertion due (and proportional) to modulation.

When the carrier is sufficiently suppressed and regeneration is absent, the r.f. pattern on the c.r.o. looks just like a normal audio pattern, i.e. crisp and

* 16 Leane Street, Hughes, A.C.T., 2605.

BRIGHT STAR CRYSTALS

FOR ACCURACY, STABILITY, ACTIVITY
AND OUTPUT



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Book Review

"WORLD AT THEIR FINGER-TIPS"

By John Clarricots, past R.S.G.B. General Secretary, 1930-1963. This magnificent 300-page volume traces the history and growth of the R.S.G.B. and Amateur Radio in the U.K. since the 19th century. It contains 31 chapters and more than 40 illustrations.

Pat Hawker, writing the "Introduction," comments: "No longer can we be sure that all newcomers to the hobby will hear firsthand reminiscences of the pioneers, and more vital has it become for the records to be written into one continuous story."

John Clarricots does this admirably. Every discerning Ham, wishing to know what his hobby is all about, must have this one on his bookshelf.

Price: Paperback 12/-, de luxe 42/6 (Sigs.). Available from R.S.G.B., 28 Little Russell Street, London, W.C1.

"THE WORLD OF MR. SHERATON"

By Ern. Henderson, W1AUC/W1UDY. This is an amazing "Rags to Riches" autobiography, of one of our fraternity. This man, from the most humble

beginnings, built himself a Motel and Hotel Empire in the U.S.A., to the value of 400 million dollars.

Humorous episodes vie with fascinating accounts of business ventures. Mr. Henderson, who became universally known as "Mr. Sheraton," devotes a thought-provoking chapter to his own personal philosophy of life. Many references are made to Amateur Radio throughout its pages. The author is an extremely good story-teller, and it is difficult to put this book down.

Price: Originally \$4.50 (U.S.).

CHANGE OF MEETING PLACE

MOORABBIN AND DISTRICT RADIO CLUB

Editor "A.R.," Dear Sir,

As from Friday, 20th October, 1967, the Moorabbin and District Radio Club has been holding its meetings at the rooms of the Moorabbin Baseball Club in Summit Avenue, Moorabbin.

Summit Avenue is on the eastern side of Bluff Road, half a mile south of the intersection of Bluff Road and South Road.

Club meeting nights will continue to be the first and third Fridays of each month and, as always, non members are welcome.

For purposes of correspondence, the club's address will be:

4 Elizabeth Street,
East Brighton, Vic. 3187.

—Harold L. Hepburn, Hon. Sec.

Modification of BM3 Mike for Switch-to-Talk Operation

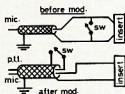
GEOFF WILSON,* VK3AMK

The Japanese BM3 crystal microphone has been available for some years now at a reasonable price and has been quite popular. Having used one for four years on an a.m. rig, I decided to modify it for use with a s.s.b. transmitting using switch-to-talk.

As supplied, the BM3 has only the normal single-core shielded cable and a miniature screw type microphone plug and socket. The in-built switch simply shorts the insert to earth in the "off" position.

To convert to switch-to-talk the following method is used: Firstly, remove the switch retaining screws. The next step is to carefully remove the chrome retaining ring and cut the leads from the insert. Now the connector on the other end of the case is unscrewed and the leads cut. The switch is now drawn clear of the case.

Unscrew the grub screw on the cable connector and remove the spring cable protector. Knock out the fibre insulation in both connector pieces as in the converted set-up the connectors are used as an inlet for the cable only. The switch-to-talk requires the in-built switch to close in the "on" position and this means turning the inner section of it 180° to retain correct reading of the "on-off" indications.



The switch modification is simple and only requires easing the clamps on one side of the assembly to allow the inner section to be removed and turned end for end and replaced. Tighten the clamps and check the switch function to ensure it closes in the "on" position.

If it is not considered important that the switch shows "on" or "off" in the correct order, it may be left unaltered but it may cause confusion especially if used by someone who is in the habit of using properly marked gear!

Rewire the microphone with two-core shielded cable, connecting the insert directly to the co-ax. The switch-talk lead is taken to one side of the switch, the other side to earth. The cable is passed through the modified connector and the grub screw tightened to hold the cable. All that is now required is simply a suitable three-core connector plug to suit the transmitter.

* 7 Norman Ave., Frankston, Vic.

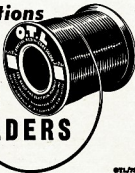


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OTL/76

A PRINTED CIRCUIT TRANSISTORISED S.S.B. GENERATOR

A. S. LUNDY,* VK2ASI

FOLLOWING is a description of a compact all transistor 5 Mc. s.s.b. generator. Circuit board dimensions are 5" x 2 1/2" with a component depth of 2". Operation is from 12 volts at 8 mA. It was constructed as a basis for a 40 metre all transistor transceiver, which is planned for construction in the near future as an aeronautical mobile unit. Heterodyning to 2 metres with a balanced mixer is also contemplated.

of the trace exhibiting a greater slope than was really present.

The method of feeding the voltage dependent capacitor was also altered so as to cure an annoying back and forth drift of the scope pattern. The use of a potentiometer and a voltage dependent capacitor as the tuning element has also been used in the v.f.o. for the proposed transistor transceiver and gives excellent results. The filter shape obtained was quite satisfactory, ripple

CIRCUIT

Output from a high impedance crystal microphone is fed to the gate of a 2N4360 field effect transistor, then into a 2N3565 audio amplifier. A small inter-stage audio transformer supplies push-pull audio to the bases of a pair of 2N3693 balanced modulators. R.f. is fed in parallel to the emitters and the output is push-pull in the bifilar wound output coil. Exact balance is obtained by means of the 500 ohm pot. in the emitters, and this control can be mounted away from the unit if desired. Audio gain is controlled by the 100 ohm resistor in the positive supply to the audio stages. This can be replaced with a 500 ohm potentiometer if desired.

Input to the filter is via a capacitively tapped slug tuned coil wound on the same former as the balanced modulator bifilar coil. This former has two tuning slugs, one for each coil and is a t.v. plug-in coil 9/32" in diam. and 2" long. S.s.b. output from the filter is directly coupled to the 2N3693 amplifier base, the 470 ohm bias resistor is also the terminating resistor for the filter.

High impedance output to the grid of a following valve stage is taken from the collector of the 2N3693. A low impedance output is also provided to suit the base of a following transistor stage by means of the capacitive tap arrangement. The toroid coil across the filter was wound on the ferrite nut from the tank coil of the BC611 walkie talkie. A straight slug tuned bifilar coil can also be used.

TUNE-UP

The current drain of the various stages is as follows: 2N4360 1.5 mA., 2N3565 1.0 mA., balanced modulators 0.5 mA., crystal oscillator 3 mA., amplifier 2 mA.

(Continued on Page 10)

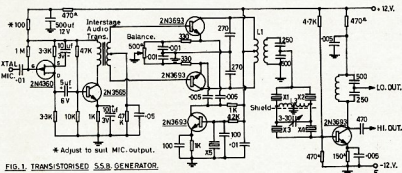


FIG. 1. TRANSISTORISED S.S.B. GENERATOR.

FILTER

The filter was constructed using 5205 Kv. FT243 crystals as per articles in "A.R." and "R.T. & H." The crystals were etched to frequency using dilute hydrofluoric acid, washed in water and dried with methylated spirits, then ether. Separation between pairs was approximately 1.5 Kc. The bandpass shape was determined by means of a modified version of the "R.T. & H." December '63 sweep unit and a c.r.o. with a suitable vertical amplifier. Sweep speed was 6 cycles per second. The sweep unit as described in the "R.T. & H." article was unsatisfactory at this slow speed, the right hand side

was less than 2 db. and the shape factor less than 2 to 1.

CIRCUIT BOARD

The required pattern was painted onto the blank board using Shellac in methylated spirits, and then etched in ferric chloride solution. The shellac was then removed with spirit. Holes for the components were drilled with a 1/32" drill. Crystal holes are 3/32" slightly enlarged. The shield between the pairs of crystals is attached by means of 18 gauge copper wire through the board in three places, and goes across the full width of the board.

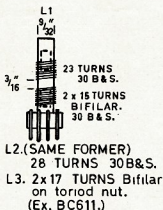


FIG. 2. COIL DETAILS

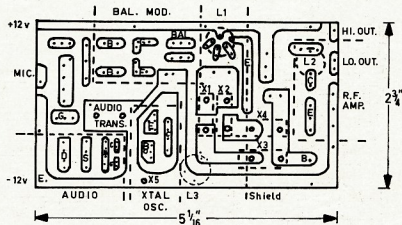


FIG. 3. PRINTED CIRCUIT BOARD LAYOUT.

* 36 Otho Street, Inverell, N.S.W., 2360.

Transistorised S.S.B. Generator

(Continued from Page 9)

The crystal filter was adjusted first using the sweep unit and c.r.o. No voltage was applied to the s.s.b. generator. Output from the sweep unit was applied to the collector of one balanced modulator via a few pF. capacitor and input to the c.r.o. was taken from the 470 ohm filter terminating resistor through a voltage doubling detector. The balanced modulator bifilar coil was adjusted for maximum scope pattern, then the filter input coil and toroid coil trimmer were adjusted for best filter response. A few pF. across one or more of the crystals will sometimes help.

The sweep unit was then disconnected and voltage applied to the s.s.b. generator. Input to the c.r.o. was then taken from the collector of the ampli-

fier stage via a small capacitance and the c.r.o. r.f. probe. The balance potentiometer was turned fully one way and the balanced modulator bifilar coil reaped for maximum pattern, then the amplifier stage tuned circuit was peaked. The balance control was then adjusted to reduce the carrier pattern, and it should be possible to get the carrier down to an almost indetectable level.

Audio is then applied to the microphone and the usual s.s.b. pattern should appear. Output is about $\frac{1}{2}$ volt peak to peak, which should be sufficient for a following mixer. It is not possible to get any indication on a g.d.o. or diode plus meter, the use of a scope is necessary at the small power involved.

All transistors used are inexpensive Fairchild types, available from the manufacturer direct.

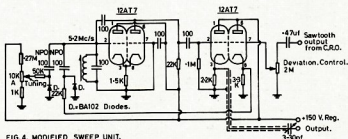


FIG.4. MODIFIED SWEEP UNIT.

YOUTH RADIO SCHEME

There is no news this month which is not surprising as everyone is flat out working and studying for the end of the school year.

At this point I wish everyone a happy and safe holiday season and trust that all your plans for 1967 will come true. Don't forget the Y.R.S. rule for safety—"Build projects which operate on low voltage as mains work can be quite dangerous until you have considerable experience with the power of electricity."

Each State now has an active Y.R.S. Supervisor and shortly I hope to have a complete list of names and addresses. However, in the meantime, if you wish information, the quickest way would be to contact the Secretary of your State W.I.A. to get the name of your Y.R.S. Supervisor.

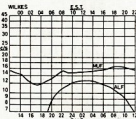
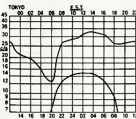
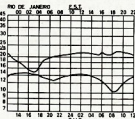
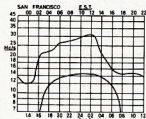
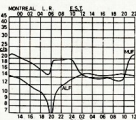
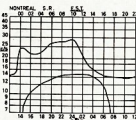
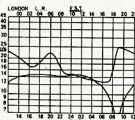
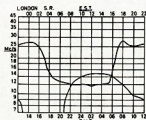
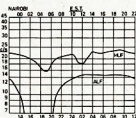
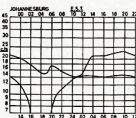
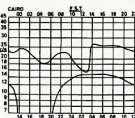
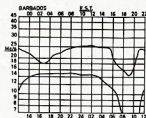
There is a special correspondence service for those unable to attend a radio club or classes. Roger Davis, VKIRD, 14 Hovea St., O'Connor, A.C.T., 2601, is the Supervisor for the Correspondence Section and is always pleased to hear from anyone interested in learning radio by mail. There are printed courses available for each section of the total course which consists of the Elementary, Junior, Intermediate, Senior and Advanced. The course is designed essentially for school children and, therefore, is done in easy stages to cover a period of three years approximately. However, it is not limited to school children and several adults have already started the course. A letter to Roger could open up a whole new world for you. Best 73, Mona VK2AXS.

CHANGE OF ADDRESS

W.I.A. members are requested to promptly notify any change of address to their Divisional Secretary—not direct to "Amateur Radio."

PREDICTION CHARTS FOR DECEMBER 1967

(Prediction Charts by courtesy of Ionospheric Prediction Service)



RHOMBICS AND CHAOS

A. J. C. THOMPSON,* VK4AT

WE, as a group, exist on sufferance as experimenters, mainly because of past pioneering radio successes by our Amateurs and to a certain extent also to our present Amateurs who toil by day in the professional field. This semi-professional type of writing by the above group is a product of modern trends. Without them the incomprehensible would remain as such to the average Amateur.

This does not necessarily mean that the non-technical Amateur is doomed to spend his leisure hours dial-twiddling or, if his pocket is elastic, to "duck talking". A glance through advanced technical books shows that all admit to having only a fractional knowledge of the subject under review.

Fortunately, advanced technical works are available from our city libraries, and are also available to the country dweller. These modern works include Electronics and Antenna Engineering Handbooks, etc. Except in the case of the research type their authors usually set out in understandable terms the non-technical principles discussed in the ensuing chapter. So actually the lofty title of the book can be ignored and similar treatment meted out to all squigly things observed in the text. Having spent some years in an institution where thousands of experiments were annually conducted, it was no hardship for me to curb my wishful thinking propensities and to judge facts without bias.

My present role as experimenter was forced on me. My QTH unfortunately is in the wrong end of a valley 100 miles N.W. from Brisbane. It is very badly situated for both t.v. and the Amateur bands, although the latter were tolerable with good conditions. I cast envious eyes on my southerly ridge 300 feet high and 2,000 feet distant, too far for transmission lines. Long wires towards Adelaide then Brisbane were followed by vee's, then finally by a rhombic towards Sydney. (The rhombic encloses about 10½ acres with two-thirds mile of wire.)

In all cases, when their noses were poked over the top of that ridge they gave that consistency of signal which the multiband type situated inside the valley had failed to give. The results were still disappointing, due to their directional characteristics and lack of signal strength in the desired direction. A combination of the two would be ideal. Actual contact on various points of the multiband proved a failure.

Erratic success followed on the parallel connection of the 300 and 600 ohm feed lines and the inductive interaction of the fields, feeder to feeder, feeder to aerial, aerial to aerial, together with a right angle take-off from the apex of the rhombic's main axis. Swift switching arrangements were made for tests. These were:—

- (1) Rhombic alone.
- (2) Multi-band alone.
- (3) Short section multi-band to right half of rhombic.
- (4) Long section multi-band to left half of rhombic.
- (5) Condenser across feeders.

The results were chaotic! Persistent efforts and consistent reports over long periods by long-suffering Amateurs gradually evolved a pattern of sorts. This became clearer when feeder radiation tests were conducted to see which legs were actually radiating during test periods. It appeared then that these curious and conflicting reports were due solely to an unorthodox application of standard procedures. The feeder tests showed that the transmitter would "see" the rhombic as one vee, the No. 3 group as another vee, and the No. 4 group as another vee. No. 5 would act as a slow switching device.

Once the rhombic and multi-band were connected by their feeders in parallel they ceased to exist as such. At this junction we could assume that:

- (1) The physical and electrical axis of the rhombic differed.
- (2) The impedance of each half differed.
- (3) The impedance (as connected) of half the rhombic matched that of the multi-band one way, but not in the other configuration.

The surprising features were that:—

- (1) Grounding of the feeders had little effect on either receiver or transmitter, but appeared to alter the radiation pattern.
- (2) The rhombic was a quiet aerial under QRN conditions with a tremendous advantage over all combinations on the receiver.
- (3) The multi-band combinations collected all the static around but, although more efficient, it was erratic in both cases.
- (4) The radio blanketing or skip conditions that affected the multi-band in the valley could mean at times a gain of up to 4 S points in favour of the rhombic combinations if they were unaffected (on reception).
- (5) The low-level rhombic gave a below-standard performance (on transmitter).
- (6) The signal strength as registered on the receiver would be an indication of transmission suitability on that particular aerial in the case of 80 metres but it was not so on 40 metres.
- (7) A slow QSB varied with two different aeriels and it was less pronounced with both together than with either separately.
- (8) The four ground "spears" were not at the same potential.

The minor effect produced by grounding both feeders could perhaps be explained by the unusual behaviour of terminating resistors. It appears that under certain conditions, two receivers can operate at opposite ends (across a R) and in opposite directions. The terminating resistor may be a "tapered" or transmission line of similar characteristic impedance or a suitable high loss attenuation line culminating in a resistor, centre tapped to earth. (The rhombics evidently are not fussy about which end these things go on) and I evidently just about reproduced these conditions on my end while still retaining an equally unorthodox resistor on the other end.

We note in passing that terminating resistors change "standing waves" rhombics to "travelling wave" types. This latter type have no antinodal points. The potentials and currents are approximately constant throughout its entire length. The feeder-radiation tests in conjunction with signal reports showed curious factors. The rhombic appeared to give its best performance when one half radiated. The least output was when both sides appeared to be electrically balanced with equal radiation. Each vee combination gave similar results. In each case, maximum signal strength coincided with maximum radiation from only one leg. We could reasonably assume that the other leg is acting as a conveniently situated "ground" or counterpoise.

To conclude, I do not advocate such stunts for transmission purposes but long wires and dual aeriels give very efficient service for receivers that single aeriels could not equal. The very thought of returning to a single aerial appals me. The fact that I got the right results by the wrong methods worries me not at all. What does worry me is the null that I have down Victoria way on 40 metres.

There is little doubt that, under my abnormal conditions, the combination multi-band and rhombic give the best results on transmission. (This is my standard antenna.) The multi-band is equal under good conditions. The same applies to reception except where QRN is present and presumably side-on. In that case the low-level rhombic is outstanding. (This is my standard antenna at night time.) I belong to the non-technical group, but I still have accumulated enough knowledge to realise that some of those results are not what you would reasonably expect. The multi-band is off-centre fed with 300 ohm line with an aerial-tuner. The transmitter is a Command.

The low-level rhombic's main axis is along the top of a ridge and would be approximately 100 feet average height above the actual wires themselves. This means that the left hand side is separated from the right hand, except at each end, by this ridge.

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2-16	5/8"	16	3"	No. 3007	70c
3-08	3/4"	8	3"	No. 3010	82c
3-16	3/4"	16	3"	No. 3011	82c
4-08	1"	8	3"	No. 3014	95c
4-16	1"	16	3"	No. 3015	95c
5-08	1 1/4"	8	4"	No. 3018	\$1.28
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SPECIAL ANTENNA ALL-BAND TUNER INDUCTANCE

(equivalent to B. & W. No. 3907 7")

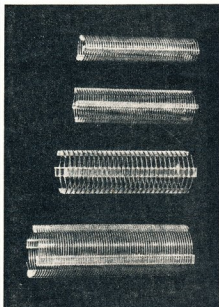
7" length, 2" diameter, 10 turns per inch, \$2.76

References: A.R.R.L. Handbook, 1961; "QST," March 1959; "A.R.," Dec. 1959.

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TRANSISTORISED 2-METRE F.M. TRANSMITTER

Herewith are circuit diagram and the layout of a 2 metre f.m. transistorised transmitter built and tested on the air about 18 months ago by VK3ZRZ. Since then he has not been able to write an article on the subject, and these brief details may be of interest to Amateurs.

Coils L1-L6 will work if they resonate with the capacity shown; a g.d.o. will fix this. Tune for maximum output.

L7 is a problem. VK3ZRZ had one on hand that worked but the filter should roll off at 3 Kc.—values for C25 and C26 were used.

A red insert dynamic microphone was used in conjunction with the equipment. Power output was 250 mW. at 145 Mc. and can be increased to 500 mW. with selected transistors at higher voltages (changing Q5 to 2N3643 may be necessary).

Ranges of 12 miles with ground plane to mobile, and about 6 miles mobile to mobile have been recorded.

Deviation of 80 Kc. was obtained without any trouble.

The circuit indicates what can be done without sophisticated circuitry or test equipment.

If the oscillator works then the whole thing can be aligned using only an r.f. probe and a sensitive multimeter. The deviation was set "on air".

Apologies that the audio section is not shown on the layout diagram. At the time the drawings were made this was still in breadboard form, all over the bench, but there is enough room if a pot core is used for L7 and the mike preamplifier is external.

—D. M. Bennett, VK3ZRZ.

CONVERTING CARPHONES

(Continued from Page 4)

20 Tx to Rx:	Rec. Octal:
Pin 1—LT active.	Vib. tans.
2—LT active.	Vib. reed.
3—Rec. ON relay.	Earth.
4—Audio com.	LT active.
5—Speaker.	+150v. HT.
6—600 ohm out.	Audio com.
7—Earth.	Speaker.
8—+150v. in.	600 ohm out.
9—+150v. out.	
10—Bias.	
11—Mute.	
12—Mute.	
20 Tx to Control:	Tx Octal:
Pin 1—LT active.	Vib. coil.
2—Trans. ON rly.	LT active.
3—Rec. ON rly.	HT return.
4—Audio com.	Bias.
5—Speaker.	PTT relay.
6—600 ohm out.	+300v.
7—Mic.	Earth.
8—PTT relay.	Mic.
9—+150v.	
10—Bias.	
11—Mute.	
12—Mute.	

ACKNOWLEDGMENTS

The author wishes to thank Jim Stewart, VK3AS, for checking the manuscript before publication and making several useful suggestions. Acknowledgment of the help of Bert Smith, VK3AAF, and Ed Manifold, VK3EM, is also made.

FEDERAL COMMENT (Continued from Page 2)

"Once again I thank you for giving me this opportunity to make my humble contribution to this international fraternity and it is my hope that the Radio Amateur movement will progress, expand and prosper as it deserves."

Those comments from the Secretary-General of the I.T.U. made in Geneva at the 1967 I.A.R.C. Convention seem to indicate a favourable attitude to Amateur Radio on his part!

With regard to the International Amateur Radio Club, Roy Stevens, G2BVN, Immediate Past President of R.S.G.B., Vice-Chairman of I.A.R.U. Region I, Executive Committee, who recently attended the I.A.R.C. Convention, comments in a report kindly sent to Federal Secretary W.I.A. as follows:

"... the I.A.R.C. can fulfill a worthwhile function. It provides an entry to the I.T.U. and to the Secretary-General and the members of the C.C.I.R. and the I.F.R.B. Without the annual Convention and the permanent Amateur Station (4UITU Geneva) it would be more difficult to find an opportunity to talk freely with the staff members of the I.T.U. M. Milli has shown himself to be sympathetic to the Amateur movement, and I believe I have established with him a degree of personal friendship which might be of advantage at some future time."

This comment clearly shows up the value of personal contact between Amateurs at international level, and between Amateurs and the I.T.U. Australia was not represented at either of the I.A.R.U. Regional Conferences held recently, or at the I.A.R.C. Convention in Geneva!

NEW CALL SIGNS

JUNE-AUGUST, 1967

VK1AM—L. McGarry, 20 Harris St., Hackett, 2602.
 VK1DB—R. A. Brown, 9 Arkana St., Yarralumla, 2600.
 VK1FB—B. B. White, 38 Cox St., Ainslie, 2602.
 VK1G—A. A. Sangster, 105 A'Beckett St., Watson, 2602.
 VK1J—T. Van Eck, 162 Duffy St., Ainslie, 2602.
 VK1K—R. J. Swan, 16 Barkly Cres., Forrest, 2603.
 VK1Q—J. R. Tipper, 9 Sullivan Ave., Wagga, 2602.
 VK1JG—School of Applied Electricity, Sydney Technical College, Harris St., Ultimo, 2007.
 VK1WJ—L. G. H. T. Robertson, 63 Rosedale Rd., East Gordon, 2072.
 VK1XN—J. A. Hampel, 3 Sylvia Pl., French's Forest, 2086.
 VK1Y—D. Williams, 52 Acacia Rd., Sutherland, 2232.
 VK1ZBF—C. Fletcher, 19 Brook St., Thornleigh, 2120.
 VK1ZBK—R. C. Kirkwood, 15 Grant St., Macquarie, 2444.
 VK1ZBU—D. Coleman, Station: Port Hacking Rd., Miranda, 2238; Postal: P.O. Box 19, Kingsford, 2032.
 VK1ZBY—C. T. Young, 2 Iredale Ave., Cremorne, 2059.
 VK1ZBF—C. E. Fredrickson, 14 Hillpine Ave., Kogarah, 2217.
 VK1ZBE—L. C. Claver, 30 Burgoyne St., Gordon, 2072.
 VK1ZBV—Maitland Y.M.C.A. Radio Club, Station: 254 High St., Maitland, 2320; Postal: P.O. Box 54, Maitland, 2320.
 VK1ZBJ—J. E. George, 59 Greenslopes Cres., Mt. Ousley, Wollongong, 2500.
 VK1ZBK—Parkes and District Amateur Radio Club, 55 Clarendon St., Parkes, 2870.
 VK1ZBP—C. Smyser, C/o D. Duff, 34 William St., Hornsby, 2077.
 VK1ZBP—N. L. Pinkerton, 1 Kings Pl., Carlingford, 2118.
 VK1ZBU—R. Volght, Officers' Mess, R.A.A.F., Richmond, 2735.
 VK1ZBW—W. R. Lindone, 34 William St., Hornsby, 2077.
 VK1ZBH—H. Halpin, 19 Morton St., Waverton, 2060.
 VK1ZBJ—J. Nutt, 8 Spearman St., Rosebud, 2065.
 VK1ZJT—J. A. Craike, 400 Avoca St., Kingsford, 2032.
 VK1ZJY—R. Jones, 23 Amara Pde., Roseville, 2059.
 VK1ZKX—R. G. Dixon, 17 Lanthams Rd., Model Farms, 2133.
 VK1ZKZ—K. E. Riley, 11 Chapman St., Strathfield, 2135.
 VK1ZMY—K. A. McGarrity, 229/31 Macquarie St., Sydney, 2000.
 VK1ZMZ—J. G. McCloughan, 450 Blaxcell St., Guildford, 2161.
 VK1ZNK—A. K. Nikku, Cabramatta Hostel, Cabramatta, 2166.
 VK1ZOG—M. W. O'Grady, 216 Ellesmere Rd., Guyra, 2271.
 VK1ZPB—P. F. Bell, 59 Station St., West Ryde, 2114.
 VK1ZQC—G. W. Cooley, Lot 6, Main Rd., Medvale, 2201.
 VK1ZSN—R. Shuefrin, 19 Stirling Cres., Lilli Pilli, 2229.
 VK1ZST—E. R. Cousins, 34 Fiona Rd., Beecroft, 2119.
 VK1ZTW—E. W. Howell, Werombi Rd., Camden, 2570.
 VK1ZUP—W. H. Holliday, 3 Koors Ave., Wahroonga, 2076.
 VK1ZVM—Maitland Y.M.C.A. Radio Club, Station: 254 High St., Maitland, 2320; Postal: P.O. Box 54, Maitland, 2320.
 VK1ZVP—R. H. Little, Station: 53 Clarinda St., Parkes, 2870; Postal: 4 Fisher St., Parkes, 2870.
 VK1ZW—J. H. Howe, 9/2 Dolphin St., Randwick, 2031.
 VK1ZWP—W. T. Rice, 60 O'Connor St., Kogarah, 2217.
 VK1ZYK—D. S. Fraser, 221 Park Ave., Kotara, 2288.
 VK1ZL—L. A. F. Grant, 2 Wellington St., Lower Templestowe, 3107.
 VK1ZM—J. Miller, 25 Rivette St., Mordialloc, 3186.
 VK1ZM—M. Thompson, 15 Dover Pl., Parkdale, 3194.
 VK1ZPE—B. F. Huggard, 18 Elster Ave., Gardenvale, 3185.
 VK1ZAT—T. E. Whitfield, 1624 Nepean H'way, Rye, 3941.
 VK1ZAUH—R. Hooper, 13 Laurens St., Rosebud, 3939.

VK1ZCJ—G. G. Baker, Old Dandenong Rd., Heatherton, 3202.
 VK1ZCQ—G. D. Johnson, "Weller Lodge," 169 Canterbury Rd., Canterbury, 3126.
 VK1ZDS—E. W. Templeton, "Carinya," Tahara Bridge, 3361.
 VK1ZKD—K. D. Schuhen, 20 Scott Gr., Burwood, 3125.
 VK1ZMB—N. W. G. Barker, 458A Kooyong Rd., South Caulfield, 3162.
 VK1ZQR—G. A. D. Thompson, 115 Hawdon St., Heidelberg, 3084.
 VK1ZUU—V. Kondratiev, 5 Wren St., Altona, 3018.
 VK1ZVM—L. C. Morgan, 23 Walbundry Ave., North Balwyn, 3104.
 VK1ZVU—Z. Svalbe, 45 Surrey Rd., Mt. Waverley, 3148.
 VK1ZWC—T. J. Conboy, 38 Laurence St., Middle Brighton, 3186.
 VK1ZWW—J. Hubregtse, Jr., 14 Maddox Rd., Newport, 2013.
 VK1ZWZ—R. K. Whalley, 3 Dwyer St., Blackburn, 3130.
 VK1ZXS—P. A. Stroud, Lot 38, Shelley Ave., Baywater, 3153.
 VK1ZYH—L. N. Hocking, 7 Noonan St., Benalla, 3572.
 VK1ZYT—C. S. Taylor, 19 Simpsons Rd., Box Hill, 3128.
 VK1ZZM—L. P. Mion, 114 Edale St., Sunawadby, 3131.
 VK1ZGI—G. A. Bonney, 18 Greatheds Rd., Bundaberg, 4670.
 VK1ZGU—J. G. Karaberg, 39 McDowall St., Toowoomba, 4558.
 VK1ZHG—J. M. Hamilton, Station: Willis Island; Postal: 37 Byfield St., Reservoir, Vic, 3073.
 VK1ZIH—H. Mullins, 45 MacLraith St., Cairns, 4870.
 VK1ZKF—W. D. Macaulay, 25 Parkmore St., Boondall, 4034.
 VK1ZK—G. A. Avery, Officers' Mess, R.A.A.F. Base, Amberley, 4305.
 VK1ZCF—R. K. Pietrala, Samsonvale Rd., Strathmore, 4500.
 VK1ZCE—C. E. Meredith, King's College, Upland Rd., St. Lucia, 4067.
 VK1ZCO—H. E. Cost, 14 Jellicoe St., Coorparoo, 4151.
 VK1ZCD—D. C. Hunter, 94 Prince St., Annemey, 4123.
 VK1ZGS—C. C. Squeelch, 10 Row St., Ingham, 4850.
 VK1ZVH—H. V. Hunt, Flat 2, 371 Coronation Dr., Auchincloss, 4905.
 VK1ZDN—A. A. Danielli, 22 Jervois Ave., Magill, 5072.
 VK1ZIE—T. H. Baker, 28 Wilkins St., Glengowrie, 504.
 VK1ZUW—R. F. Daniels, 2 Ridgeway Ave., Darlington, 5047.
 VK1ZV—P. Kempster, Emmetts Rd., Crafer, 5125.
 VK1ZUN—J. W. Worthington, Lot 199, Doradas Ave., Hope Valley, 5090.
 VK1ZXC—G. N. Atkinson, 40 Main St., Peterborough, 5422.

VK1ZKW—G. P. Shields, Warland Ave., Victor Harbour, 5211.
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 VK1ZBQ—K. R. Williams, 13 Chatsworth Gr., Toorak Gardens, 5055.
 VK1ZEL—O. A. Isaacsen, 70 Arthur St., Unley, 5161.
 VK1ZFL—J. R. Birrell, 5 Franklin Tee, Mt. Gambier, 5280.
 VK1ZKB—K. D. J. Prendergast, 34 Manningford Rd., Elizabeth South, 5112.
 VK1ZSV—V. L. Schwinger, 86 Hincks Ave., Whyalla, 5600.
 VK1ZSW—W. D. Wildash, 82 Baker St., Glengowrie, 5604.
 VK1ZWW—W. A. Watkins, Station: 45 Edward St., Norwood, 5067; Postal: C/o Pept. of Interior, Box 336, G.P.O., Adelaide, 5001.
 VK1ZAD—A. W. Stewart, 8 Palm St., Bunbury, 6230.
 VK1ZCZ—R. P. Potter, 18 Tautog St., Exmouth, 6707.
 VK1ZPA—K. C. Parker, 82 Broadway, Bassendean, 6054.
 VK1ZCE—C. Morey, 32 Redcliffe Rd., Redcliffe, 6104.
 VK1ZHB—H. G. Buckley, 386 Fitzgerald St., North Perth, 6006.
 VK1ZHE—H. E. Hewens, 176 Charles St., Launceston, 7250.
 VK1ZWF—T. W. J. Emmett, Station: 134 Wilson St., Burnie, 7220; Postal: 6 Halg St., Lenah Valley, 7008.
 VK1ZAE—A. R. Everts, 88 Goulburn St., West Hobart, 7000.
 VK1ZCV—C. D. Walker, 122 Granville St., Launceston, 7250.
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 VK1ZED—L. L. Eadie, 23 Culloden Ave., Moonah, 7090.
 VK1ZRV—R. J. Verrall, 195 Arthur St., West Hobart, 7000.
 VK1ZGU—W. B. McIntosh, Station: Eldo Tracking Station, Gove, N.T., 5777; Postal: 1453 South Rd., Bedford Park, 5042.
 VK1ZPT—C. C. Talbert, Batchelor, N.T., 5791.
 VK1ZGU—Gove Social Club, Eldo Tracking Station, Gove, C/o P.M.B. Darwin, N.T., 5794.
 VK1ZBG—H. N. G. Broadbent, Peck Mines, Tennant Creek, N.T., 5791.
 VK1ZAA—R. R. Metzger, Station: Portable; Postal: Gafamo, P.O. Goroka, T.P.N.G.
 VK1ZBK—B. M. Kidegel, Station: No. 25, First St., Lae, T.P.N.G.; Postal: C/o Posts and Telegraphs, P.O. Box 269, Lae, T.P.N.G.
 VK1ZWB—W. Bowles, Station: S.I.L., Ukarampa, E.H.D., T.P.N.G.; Station: S.I.L., P.O. Ukarampa, E.H.D., T.P.N.G.
 VK1ZCH—C. H. Hocking, Station: Lot 5, Section 74, Peppigari St., Kororoboro, Port Moresby; Postal: C/o A.B.C., P.O. Box 1329, Boroko, T.P.N.G.

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JOHN MOYLE MEMORIAL NATIONAL FIELD DAY CONTEST, 1968

SATURDAY, 3rd FEBRUARY, 1968, TO SUNDAY, 4th FEBRUARY, 1968

The Federal Contest Committee of the Wireless Institute of Australia invites all Australian Amateur and Short Wave Listeners to participate in this Annual Contest, which is held to perpetuate the memory of John Moyle, whose efforts advanced the Amateur Radio Service.

There are two divisions of this Contest, one of 24 hours continuous duration, and one of 6 hours continuous duration. The six-hour period has been included to encourage the operator who is unable to participate for the full 24-hour period.

Operators using 25 watts or less input to the final stage will be considered for a certificate where his activity warrants its issue.

DATE

From 0800 GMT, 3rd February, 1968, to 0800 GMT, 4th February, 1968.

OBJECTS

The operators of Portable and Mobile Stations within all VK Call Areas will endeavour to contact other Portable/Mobile and Fixed Stations in Australia and Overseas Call Areas.

RULES

1. There are two divisions, one of six (6) hours, and one of twenty-four (24) hours duration. The six-hour period for operating may be chosen from any time during the Contest, but the six-hour period so chosen must be continuous. In each division, there are six sections:—

- (a) Portable/Mobile Transmitting, Phone.
- (b) Portable/Mobile Transmitting, C.W.
- (c) Portable/Mobile Transmitting, Open.
- (d) Portable/Mobile Transmitting, Multiple Operation, open only.
- (e) Fixed Transmitting Stations working Portable/Mobile Stations, open only.
- (f) Reception of Portable/Mobile Stations.

2. All Australian Amateurs are encouraged to take part. Operators will be limited to their licensed power. This power shall be derived from a self-contained and fully portable source.

(a) Portable/Mobile Stations shall not be situated in any occupied dwelling or building. Portable/Mobile Stations may be moved from place to place during the Contest.

No apparatus shall be set up on the site earlier than 24 hours prior to the Contest.

All Amateur bands may be used, but no cross band operating is permitted. Cross mode operation is permitted.

Entrants in Section (d) for Multiple Operator Stations can set up separate transmitters to work on different bands at the same time. All such units of a Multiple Operator Station must be located within an area that can be encompassed by a circle not greater than half a mile diameter.

For each transmitter of a Multiple Operator Station a separate log shall be kept with serial numbers starting from 001, and increasing by one for each successive contact. All logs of a Multiple Operator Station shall be submitted by the operator under whose Call Sign the transmitters are working. No two transmitters of a Multiple Operator Station are permitted to operate on the same band at any time.

3. Amateurs may enter for any section.

4. One contact per station for phone to phone, also one for c.w. to c.w. per band is permitted. Cross mode operation will be accepted for scoring.

5. Entrants must operate within the terms of their licences and in particular observe the regulations with regards to portable operation.

6. Serial numbers consisting of RS or RST report plus three figures commencing with 001 and increasing by one for each successive contact shall be exchanged.

7. Scoring—

(a) Portable/Mobile Stations:

For contacts with Portable/Mobile Stations outside entrant's Call Area 15 points

For contacts with Portable/Mobile Stations within entrant's Call Area 10 points

For contacts with Fixed Stations outside the entrant's Call Area 5 points

For contacts with Fixed Stations within the entrant's Call Area 2 points

(b) Fixed Stations:

For contacts with Portable/Mobile Stations outside entrant's Call Area 15 points

For contacts with Portable/Mobile Stations within entrant's Call Area 10 points

8. The following shall constitute Call Areas: VK1, VK2, VK3, VK4, VK5, VK6, VK7, VK8, VK9 and VK0.

9. All logs shall be set out under the following headings: Date/Time (G.M.T.), Band, Emission, Call Sign, RST/No. Sent, RST/No. Received, Points Claimed. Contacts must be listed in numerical order.

In addition, there shall be a front sheet showing the following information:—

Name Address

Call Sign Section

Division (6-hour or 24-hour)

Points Claimed

Call Sign of other op./s (if any)

Location of Portable/Mobile Station

From hours to hours

A brief description of equipment used, and points claimed, followed by the declaration:

"I hereby certify that I have operated in accordance with the rules and spirit of the Contest."

Signed Date

10. The right is reserved to disqualify any entrant who, during the Contest, has not observed the Regulations and the Rules of this Contest, or who has consistently departed from the accepted code of operating ethics.

11. The decision of the Federal Contest Manager of the Wireless Institute of Australia is final and no disputes will be entered into.

12. Certificates will be awarded to the highest scorer of each section of each division. Additional certificates may be issued at the discretion of the F.C.C. The six-hour certificates cannot be won by a 24-hour entrant.

13. Return of Logs:

All entries must be postmarked not later than 29th February, 1968, and be clearly marked "John Moyle Memorial National Field Day Contest, 1967," and addressed to:—

Federal Contest Manager, W.I.A.,
Box N1002, G.P.O., Perth, 6001,
Western Australia.

RECEIVING SECTION

14. This section is open to all Short Wave Listeners in VK Call Areas. The Rules shall be the same as for the Transmitting Stations, but may omit the serial numbers received.

Logs must show the Call Sign of the Station heard, the serial number sent by it, and the Call Sign of the Station being worked.

Scoring will be on the same basis as for Transmitting Stations. It will not be sufficient to log a station calling CQ. A station may be logged once only for phone and once for c.w. in each band.

Awards: Certificates will be awarded for the highest scorer in each Call Area.



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Size: 3" x 3"	58c
6" x 6"	\$1.75
9" x 9"	\$3.63

Plus S.T. 12½%.

Plus Pack and Post 5c per board.

ALSO PLAIN COPPER BACKED BOARD

Size: 6" x 3"	20c
6" x 6"	36c
12" x 3"	36c
9" x 6"	48c
12" x 12"	\$1.24

Plus S.T. 12½%.

Plus Pack and Post 5c per board.

PROCESS KIT

Contains: Ferric Chloride, Bituminous Paint, Resin, and Instructions.

68c plus S.T. 12½%.

Plus Pack and Post 10c.

SPEAKER TRANSFORMERS

E TYPE, 5,000 or 7,000 ohms to 3.5 ohms, or 15 ohms.

\$1 plus S.T. 25%.

Pack and Post 15c.

PANEL METERS

Moving Iron AC/DC Meters. 1½" square. Ranges available:—

0-10, 0-20, 0-30, 0-40, 0-50 volts.

0-1, 0-5, 0-10, 0-20 amps.

\$3.50 each. Post free.

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- P.M.G. APPROVED
- R.F. STAGE
- SQUELCH CIRCUIT

\$60.00

Plus S.T. 12½%, plus freight 50c

IMPORTED ROSENTHAL HIGH STABILITY RESISTORS

1 WATT RATING

★ 15 ohms to 8.2 megohms ±1%.

★ 11 megohms to 30 megohms ±2%.

18c each plus S.T. 12½%.

Write or call for list of sizes available.

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\$1.75 each or
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including Tax and Postage.

AUDIO AMPLIFIER MODULES

Four-Transistor: 1 watt output.
High Impedance input: 100K ohms.
Low Impedance input: 1K ohms.
Output Impedance: 4, 8 or 16 ohms.
Power source: 6 volts.
Gain: 70 db.
Size of board: 4½" x 2" approx.
Supplied with circuit and wiring instructions.

\$7.50 plus S.T. 12½%.
Pack and Post 20c.

POWER SUPPLY BASIC KITS

• For supplying 9 or 12 volts DC at 500 mA. Comprising A & R Transformer, Contact Cooled Rectifier, and 1000/15 Filter Capacitor.

\$3.50 including S.T. and Postage.

• To give 250 volts DC at 60 mA, and 6.3 volts AC at 2 amperes. Comprising A & R Transformer, Contact Cooled Rectifier, 50 plus 50/350 Filter Capacitor.

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WORKED FROM ALL VIC. NATIONAL PARKS AWARD

AND

WORKED ALL VIC. NATIONAL PARKS AWARD

In order to stimulate activity, and to have awards available for those whose interest is mainly centred round the 80, 80 and 40 metre bands, the Victorian Division of the W.I.A. has inaugurated these awards, to be effective as from the 1st December, 1967.

Although primarily to stimulate low frequency activity, any Amateur band may be used, as may any authorised mode. The rules, which are set out below, have been kept simple, but it is suggested that operators from any of the Parks be careful to show on their cards the location from which they operate.

The twenty National Parks in Victoria are listed below:

1. **Alfred**—On Princes Highway, 300 miles East of Melbourne.
2. **Bulga**—On Grand Ridge Road, South Gippsland.
3. **Churchill**—On Scoresby-Rowville Road, between Dandenong and Ferntree Gully.
4. **Ferntree Gully**—22 miles East of Melbourne beyond Upper Ferntree Gully.
5. **Fraser**—On the Western shore of Lake Eildon.
6. **Glenaladale**—18 miles North of Princes Highway at Fernbank, 180 miles East of Melbourne.
7. **Hattah Lakes**—22 miles North of Ouyen.
8. **Kinglake**—40 miles North of Melbourne.
9. **The Lakes** (Spermwhale Head)—200 miles East of Melbourne. Access by road from Sale or by boat from Gippsland Lakes.
10. **Lind**—On Princes Highway, between Orbst and Cann River.
11. **Mallacoota Inlet**—340 miles East of Melbourne, near N.S.W. border.
12. **Morwell**—100 miles East of Melbourne, near Jumbuck Road.
13. **Mount Buffalo**—200 miles North-East of Melbourne.
14. **Mount Eccles**—200 miles West of Melbourne.
15. **Mount Richmond**—20 miles West of Portland.
16. **Port Campbell**—On Great Ocean Road, 150 miles West of Melbourne.
17. **Tarra Valley**—On Tarra Valley Road, 20 miles from Yarram.
18. **Wilson's Promontory**—150 miles South-East of Melbourne.
19. **Wingana Inlet**—23 miles South of Princes Highway at a point about 310 miles East of Melbourne.
20. **Wyperfeld**—287 miles North-West of Melbourne and 30 miles North of Rainbow.

The awards are available without cost to any licensed Amateur who fulfils the requirements of the rules.

To maintain interest, participants are invited to advise the Victorian Divisional Secretary of their progressive scores for publication in "Amateur Radio".

To assist in the inauguration, Zone Secretaries and any other interested parties are requested to make an effort

to get operators into National Parks on Sunday, 9th December. If there proves to be sufficient interest, the Victorian Division will consider a **Worked All Parks From All Parks Award**.

WORKED FROM ALL VICTORIAN NATIONAL PARKS AWARD

Object: This award has been created to stimulate portable and mobile activity on the lower frequencies, to assist participants in the W.A.V.N.P. award, and to give successful operators some tangible evidence of their achievements.

This award, to be known as the W.F.A.V.N.P. award, will be issued to any Amateur who satisfies the conditions hereunder.

Requirements: Two-way contacts must be made while operating either portable or mobile from Victoria's National Parks.

Applicants may use any Amateur frequency and any authorised mode. Contacts through relay or repeater stations will not be accepted.

Awards: To qualify for an award, contacts must be made from at least 15 of the 20 National Parks in Victoria.

Awards will be endorsed for Parks over and above the minimum required.

Verifications: The Secretary of the Victorian Division may use his discretion whether or not QSL cards are to be submitted, but in general a declaration, signed by the applicant that he has operated in accordance with the spirit and rules of the award, and listing the Parks from which he operated and the dates and times of such operation, will be accepted as sufficient evidence that the operations have taken place.

Applications must be made in writing to the Secretary, Victorian Division, Wireless Institute of Australia, and accompanied by the declaration mentioned.

The Victorian Division reserves the right to vary the minimum requirements in the event that the number of National Parks be altered.

In all cases of dispute, the decision of the Victorian Division and any two members of the Victorian Divisional Council shall be final and binding.

No charge will be made for this award.

WORKED ALL VICTORIAN NATIONAL PARKS AWARD

Object: This award has been created in order to stimulate activity on the lower frequencies, to increase appreciation of Victoria's scenic attractions and to give successful operators some tangible evidence of their achievements.

This award, to be known as the W.A.V.N.P. Award, will be issued to any Amateur who satisfies the conditions hereunder.

Requirements: Contacts must be made with Amateur Stations operating either portable or mobile in Victoria's National Parks.

Applicants may operate portable, mobile or home station, on any Amateur frequency and use any authorised mode. Contacts through relay or repeater stations will not be accepted.

Awards: To qualify for an award, contacts with at least 15 of the 20 National Parks must be made.

Awards will be endorsed for meritorious achievements, i.e. working all parks on one band. Additional endorsements will be made for each band on which all Parks are worked, as well as for Parks over and above the minimum requirement of 15.

Verifications: The Secretary of the Victorian Division may use his discretion whether or not QSL cards are to be submitted, but in general a declaration, signed by the applicant, stating they have sighted the confirmation will be accepted as sufficient evidence that the operations have taken place.

Applications must be made in writing to the Secretary, Victorian Division, Wireless Institute of Australia, and accompanied by the declaration mentioned above.

The Victorian Division reserves the right to vary the minimum requirements in the event that the number of National Parks be altered.

In all cases of dispute, the decision of the Victorian Divisional Secretary and any two members of the Victorian Divisional Council shall be final and binding.

No charge will be made for this award.

A.R.R.L. TECH. MERIT AWARD

At the Victorian Division's Annual Dinner, held during the first week in November, a very great honour was paid to a Victorian Amateur Radio Operator, in that the Federal President of W.I.A., Max Hull, VK3ZS, on behalf of A.R.R.L., conferred the A.R.R.L. Technical Merit Award for this year on Ray Naughton, VK3ATN.

Max introduced Ray to the Senior P.M.G. Official present at the Dinner (Mr. E. J. Wilkinson, Acting Assistant Director of General Radio) and spoke highly of the past and present efforts of Amateurs in pushing back the frontiers of technological and scientific advancement. A handsome plaque inscribed "A.R.R.L. Technical Merit Award presented to Bill Conkel, WEDNG, and Ray Naughton, VK3ATN, for advancing the frontiers of Amateur Radio by proving communication via lunar reflection to be within the realm of conventional Amateur operation" was presented to Ray by Mr. Wilkinson.

In presenting this plaque, Mr. Wilkinson referred to the interest in Amateur experimentation taken by his Department, and also to the assistance which could be given to Ray in his future moonbounce activities. He read a letter from A.R.R.L. which was addressed to VK3ATN from W1LVQ, General Manager of A.R.R.L., which stated:

"The A.R.R.L. Technical Merit Award was created by our Board of Directors to be presented to Amateurs chosen for outstanding technical contributions to Amateur Radio. This year's Board voted to present the award to you, VK3ATN, and Bill Conkel, WIDNG, for your outstanding moonbounce efforts. This is the first time the Board has made this award to an Amateur from a country other than the U.S. We want you to know that your work is appreciated by Amateurs in the U.S."

"Congratulations from Headquarters of A.R.R.L. We wish you well in your continuing efforts."

In reply to the Federal President and Mr. Wilkinson, Ray thanked the W.I.A. for the invitation to be a guest at VK3 Division's Annual Dinner, and thanked Federal Executive for arranging the presentation on behalf of A.R.R.L. He referred to the technical aspect of the moonbounce achievement and to the immense amount of time and effort necessary for its accomplishment. Photographs and slides of Ray's set-up at Birchip were viewed later in the proceedings and an appreciation of the complex "tracking" devices was gained.

During this presentation and other formal parts of the Dinner, reference was made to the fine spirit of co-operation and liaison which existed between the State Administration of the Department and the VK3 Division, and between the W.I.A. Federal Executive and the Central Office, P.M.G.

All concerned agreed that this moonbounce effort was yet another fine example of Amateur Radio achievement and the W.I.A. joined with the P.M.G. Department in congratulating VK3ATN on being the joint recipient of one of Amateur Radio's most highly prized awards.

Remember fellows, John gives a lot of time to his task and does it well. When you send cards to him please don't forget the self-addressed letter and L.R.C's, this will take a little of the strain from him.

Following several exchanges on the subject of the handling of QSL cards, I have to hand a letter from the Secretary of the VK2 S.W.I. Group. I pass extracts of this letter on to you. These have been taken at random, but their meaning is not altered by doing this:

"The QSL system is being modified so that members will receive their cards with the minimum of delay. The new system will allow members to collect their cards from the S.W.I. meeting, and if they are not collected, then they will be posted free of charge to members at the end of every fourth week of every month. Members using numbers other than WIA-L numbers will be required to inform the Secretary of this, so as to determine their address. I assumed the office of QSL

officer in order to save double postage of cards. . . . The motion regarding payment of fee for postage was revoked at the last meeting, so we hope the delivery of QSL cards will be much improved from now on. This system should be in operation by the first of next month."

This is the basic message of the Secretary's letter to me. There are a few points I would like to bring to the notice of all listeners who are not members of the W.I.A. The W.I.A. Bureau, particularly non-members of the W.I.A. There are many S.W.'s in Australia who are not members of the W.I.A. and I am sure you will prefer to name a few, who are not W.I.A. members. Now it appears that the Group have been advised that they are not to be listed within the W.I.A. records. I believe that Amateurs who are non-W.I.A. types can keep a record of their own names and addresses, and it is placed on the record that I, in reply to this communication, and in the interests of the W.I.A. Bureau, will be glad to have you offered to handle all cards which arrive at the Bureau for chaps who are not members. This is a very important point, and I am sure that cards drift into the VK2 Bureau. Provided it is carried out correctly, I feel this new system will be a great help, and I will depend entirely on those who do the job.

[illegible]

Here is the latest I have, in the usual order, confirmations, countries heard, zones, states, Eric Trebilcock 293/300/40/50, Peter Drew 197/265/33/41, Don Grantley 174/307/39/35, Ernie Luff 152/224/37/38, Mac Hilliard 103/252/33/14, Alan Raftery 79/197/31/13.

That winds it up for this month chaps. Best of luck to all who enter the Ross Hull Contest. 73, Don L2022.

TO WHICH DO YOU BELONG?

There are three types of people: The few who make things happen, the many who watch things happen, and the big majority who have no idea what's going on.

Swiped from "Siran," South India Radio Amateurs Newsreel.

Recently the Postal Department made some changes in the postal charges and in an obscure corner and with little publicity is an item of very great importance to the tape recorder collector. This is the change in the number who have many overseas tape contacts. A system known as **Phonopost** has been introduced. This service is provided for the overseas (long distance) recording of messages on disc recordings bearing messages of a current and personal nature. The sender may enclose a printed notice relating to the method of use of the service and the order to use the service, but you must not seal the container or envelope, but it can be fastened with tape, although I use a single brass clip. The words "Phonopost" must be written in large letters near the top left of the address.

So much for the conditions, let's look at the benefits. Cost for overseas surface mail is 6 cents per 2 ozs. or part thereof, and they can be sent by registered mail. Airmail is 12 cents for the "Other Article" air mail rate to the country of destination. How does this affect us? Well, let's take a typical example. Suppose you want to send a tape to England. These weigh almost 2 ozs. and under the old system would have cost 6¢. Now they cost 6¢. But it is in the air mail rate, so it's 12¢. That's a difference of 6¢. If you use a tape to England by Phonopost air mail now costs 35¢, whereas it formerly cost one dollar. The service is available to all countries except some of the more notable ones which do not subscribe to the system are Spain and Spanish Colonies, French Territories and France, Canada, the United States, Mexico, Cuba, Haiti, Santo Domingo, Philippines. If you have any difficulty in using these services, refer the officer in question to the nearest American consulate or to the nearest State Department. Rate and Conditions booklet just released.

Meet Edward Hamill, 27 years old electronics worker from Millbrae, California. Using an SX-11, Ed has mounted the impressive score of 326 countries heard in all zones, however like many of us, he does not send out a lot of cards, and to date had 151 confirmations in 36 zones. Other hobbies include stamp collecting, card swapping, and tape corresponding, the latter made possible by his own 5000 ft. Empire 840 recorder. If there are any S.W.'s in either VK4 or VK1 who would care to swap their cards with Ed, I will be only too pleased to pass them on.

Outstanding news at the moment is the condition of the 10 metre band, particularly over the week-end of the A.R.R.L. Contest (Oct. 21). I am indebted to Mac Hillard for an excellent tape of some of the highlights of that period. 15, and of course 20, still produces the majority of our DX. The 6 mxb band has shown signs of life these past few days, with openings between JA and VK4.

I have noticed a remarkable improvement in the 6 mx band at this QTH (Hazelbrook, N.S.W.), and the VK2 broadcast, also the v.h.f. version last Sunday were heard for the first time 5 by 9.

Down to Peter Drew at Balcombe in Vic., where the DX treated this keen listener really well in the VK/ZL Contest. I am not able to reveal his exact score, but let me say that in 17 years I have never known a larger one.

Recently, I promised a list of stations whose QSL chores were under the control of John Cummings, W3CTN, whose address is 159 Ketcham Ave., Amityville, 11701, New York. As there are over 100 in this up-to-date list, I will have to spread it over several issues, but here are a few to start with:

CN2BK, CN8FE/FW/GB/GC, CP1EA, CP-
1EA-5, CR3KD, CRMX/AX, CRDXX, CTINY,
CX9N, CXUO, CXCX, CY000, CZ000,
F0CT, FAUQO, PG7AK/XS, FKBAH/AI/AT/
AW, FMTWU, F8T8T, FT7YQ, GCMMWR/POI/
SHZ, G2MYV, HB0SJ, H8B8ET/HZ, HCIGC,
HC4IE/IM, HISMNM/XAG/XBG, HK1AA/HK-
LRL, HK4RQ, HK6LR, HK5RQ, HKORQ, HR-
ZFG, HS1JB, KA2DF/HK/KD/LD/RG, KBBCY,
KC4USA/USK, KC5AD/FM, KCGAM/BS, KG-
000, KR0RQ, KR0RQ, KS0RQ, KSZLS/
3AA/AF, LX0AA/AF, LX3PK, MPMQB/
MAH/QHG, Q0A7F, QEDZD, OH2AM/OHQ, OH-

Obtainable from your Divisional
Secretary, or W.I.A., P.O. Box 36
East Melbourne, C.2, Victoria.

in your log sheets this year. The compliments of the Season and good DX to all. 73, Cyril 3ZCK.

Eastern Zone.—32 Mc.: Activity nil, but the m.a.f. running very high, up to 43 Mc. 144 Mc. a.m.: The first extended ground wave DX for the season is with us again. 3ZGA 144.165 and 3ZCG 144.019 took advantage by working VK7 and VK8; George 3ZCG also heard 6ZDY Mt. Stirling, near Adelaide, 5 x 7 (15th Oct.) and Lee 3ZSS 144.125 heard a VK3 for the first time. Peter 3ZDF 144.019. The 144 odd miles East of Melbourne is looking for DX using a.m. (v.f.o.) and excellent s.a.b. 144 Mc. f.m.: 18 stations now very active, using Channel A: 9 are equipped for B, 5 for C, and 2 only on Channel 1. During October, 3ZCG Morwell found a good 70 m.f.m. path existing up to Mt. Bulder (1934 ft. S.W.C.T.), and 3ZD1 also found he had a good 100 m. path up to Mt. Buffalo (1645 ft., S.W.C.T.), but these two paths did not exist vice versa. 3ZCG also heard that day 3AJM Wangaratta. 73, George 3ZCG.

SOUTH AUSTRALIA

Ultimately the diligence and patient attitude shown by the VK3 v.h.f. enthusiasts had to be rewarded. On 11th Oct. between 1800 and 2130 A.S.T. the 6 m.x band was open to the tri-terts of J.A. In all there were about 11 VK3s on the band at the time duly doing battle. Due to inexperience in the science of linguistics the rate of contacts per station was extremely slow. Nonetheless, the most was made of the opening. Signals during the opening were breaking 51 with slow 51B, not unlike the propagated by sporadic E. An interesting aspect of this DX opening was that it was previously predicted. However, as far as an article in "A.R." October issue, page 17, headed "Position of Plants Linked to Solar Fire Prediction," will yield that relevant results in the midst of the jilt signals Doug 8KK provided an 89 contact to those who wish to exchange pleasantries.

During the same period, 2 m.x also provided some excellent openings. Numerous openings to VK3 have been recorded during October. The most prominent was noted on Oct. 15 when an area between Mt. Gambier in the S.E. of VK3 to Melbourne yielded numerous contacts into the Adelaide area. It was at the peak of activity that Csa 5GP, located at Nairne, and Tony 5ZDY, at Salisbury, worked Den 7DK in Launceston at R5 89. However, the majority of Adelaide stations had to be content with slow 51B. The VK3 12 reported that Csa 5GP has worked 45 separate VK3 calls on 2 m.x in recent weeks.

Although an increase of 432 Mc. activity is expected in the near future, the only signals audible and visible on 432 Mc. belong to the t.v. group. Of interest is the colour t.v. signal emanated from the QTH of Maitland SAO. Briefly, the equipment in constant use is a 3-tube vidicon fed into an encoder, constructed by another member of the group, namely Allan Nation. Reception is on the group's original colour receiver constructed from components imported from JA-land.

The mention of 576 Mc. activity by Rod 5ZSD and Charles 6WY into Launceston, VK5, appears imminent, with a view in recapturing their previous record. 73, Colin 5ZJH.

TASMANIA

6 m.x: Activity on this band is still mainly confined to the net frequency of 53.035, but some stations have been heard working away from this frequency.

2 m.x: Activity on this band has been on the increase due to the warmer weather. Peter 7ZPD has worked a number of Melbourne stations on 2 a.m. and Bevan 7ZBW has worked into Melbourne on 2 f.m. Also Den 7ZDK has worked into Adelaide.

A large number of high-band f.m. units have found their way into Launceston, and in the near future there should be quite an active net operating on Channel A, and eventually Channel B and C. 73, Brian 7ZBY.

.....

ERRATA—VK3 V.H.F. CONVERTER

The circuit board and layout diagram published in November's "A.R." are not full size, also R3 and R4 have been interchanged on the layout diagram.

The converter committee regret that they cannot accept any more orders for kits for the 6 metre converter for the time being, but it is quite possible that more kits will be made available when the 2 metre and 432 Mc. converters have been established.



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52 Cambro Road, Clayton, Vic.

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Sub-Editor: CYRIL MAUDE, VK3ZCK
2 Clarendon St., Avondale Heights, Vic., 3034

NEW SOUTH WALES

Well another year has passed and by this time the 6 m.x DX season will be in full swing. At least two of the 6 m.x operators have already had early Xmas presents; these are 2ZDW and 2ZVL, who succeeded in working into Japan during October.

The Group will once again be holding a Xmas Party and this year it is planned to stage the event at Dural. This is the first time that this venue has been used for this purpose and we trust it will be the medium of introducing the home of VK2W1 to more of our members.

There has been little talk but quite a bit of back-yard activity in past weeks as the v.h.f. fraternity prepare for the New Year Field Day. With stations ranging further afield each year, it is being consistently proven that v.h.f. coverage is larger than some Amateurs realise. For those stations who prefer to stay home, please remember that the contestants are travelling under these circumstances than to listen to long conversations between home stations who fail to tune for field stations. It only takes a few minutes in every hour to exchange numbers with field stations.

Active stations may be found in Orange, Bathurst, Dubbo, Coonabarabran, Parkes, Forbes, Cowsra and other townships. A W.I.C.E.N. exercise is anticipated in the near future in the Dubbo and Forbes district to gauge the effectiveness of the network under emergency conditions. Thank you, Brian VK3ZQX, for this information.

We are sorry to hear that, despite warnings regarding operating procedures, some official QSL cards have been received by a number of v.h.f. operators. Please bear in mind that your card is being heard by persons other than the operator to whom you are speaking and temper your remarks to those which you would normally make in mixed company. I would normally make in mixed company. I would normally make in mixed company. I would normally make in mixed company.

On behalf of the V.H.F. Committee and myself, may I wish you all good things for the 1967 festive season and lots of DX. 73, Keith 2ZAU.

Hunter Branch.—144 Mc.: This band has been quiet but showed some life on the night of Oct. 16 when the band opened to Sydney and beyond, the longest contact for the night was when 2ZMO at "Raymond Terrace" worked 2TR at Bega, 30 miles from the Victorian border. 2ZSG and 2ZCT also worked 2TR. For the night, Bill 2ZWM worked 13 Sydney stations, 2ZMO worked 10. The following night conditions were nearly as good and Sydney stations were again worked.

2 Mc.: The band has been quiet over the last month, no DX has been heard but the band has shown some promise at times. New stations are 2ZFX, 2ZSG, 2ZAC, 2ZSI. For the whole, conditions have not been the best over the last month. Channel 0 has only been heard at times and at times it could have been Wagga. 73, Mac 2ZMO.

VICTORIA

Other than a couple of small openings, 6 m.x DX has been almost nil, although 6 m.x activity in VK3 is fairly good, especially on the a.m. net frequency of 53.032. A few strange signals have been heard on the low end of the band and between 40 and 52 Mc.

Two metres has not been that active, but stations appear from nowhere when a trace of DX shows up. During the month there was a good opening to VK3 extending across to Adelaide and a brief opening to Northern VK1.

Other activities in Melbourne which are still very popular are the 2 m.x scrambles held on the second Sunday of each month at 2045 hrs. V.h.f. Group meetings on the third Wednesday at 2000 hours, and the 2 m.x fox hunts on the fourth Wednesday at 2000 hours. Remember the Rose Hill Memorial Contest which starts in a couple of weeks and don't forget to send



FEDERAL AND DIVISIONAL MONTHLY NEWS REPORTS

(SEND CORRESPONDENCE DIRECT TO DIVISIONAL REPORTER NAMED AT PARA. END)

FEDERAL

FL3900 LINEAR AMPLIFIER

The following letter has been received from the P.M.G. Department, Radio Branch:—

Dear Sir,

Further to recent correspondence from this Department concerning equipment for the Amateur Service, would you please note that the operation of the Yaseu Musen FL3900 linear amplifier will be accepted as meeting power output requirements for single sideband emissions when such equipment is operated with the high tension power transformer employing the 450 volt secondary tapping.

Yours faithfully,

C. J. Carvell,

For Director-General.

REGION III. AND SOUTH-EAST ASIA

At the Robert Convention a 2½-hour debate was adjourned "Sine Die" (to another day). This debate will no doubt be resumed at the 1968 Convention in Sydney, and will concern the policy that the W.I.A. should adopt towards Region III. and the I.A.R.U.

As a lead-up to that, Federal Executive was asked to prepare some suggestions for a policy to be adopted. As a basis, it is not meant to be complete, or final, but merely a starting point. Please consider this problem and suggest any extensions or changes, any acceptance of the policy, or any Divisional Federal Councillor, or to Executive.

Presamble:

Executive has examined the matter of I.A.R.U. organisation on a regional basis and is of the opinion that at this time the resources of the Region would not support the sophisticated organisations which exist in Region I. and II. We note with interest the holding of a Region I. triennial conference in Opatia, Yugoslavia; and the meeting of the Region II. I.A.R.U. Executive Committee in Salvador. Such methods of liaison and administration of the I.A.R.U. in Region III. may, however, await an increase in the number of economically advanced countries, and an easing of currency restrictions by less developed countries.

Nevertheless, it is the opinion of Executive that greater liaison between I.A.R.U. countries in Region III. must occur, and that countries without I.A.R.U. member societies should be encouraged to develop an Amateur Radio Service, and seek admission to I.A.R.U.

Accordingly, the more developed countries in the Region II. should undertake the organisation of liaison and development activities in the Region, in conjunction with I.A.R.U. Headquarters, and the Region I. and Region II. administrations.

Proposals:

1. The W.I.A. is the logical unit for the implementation of any I.A.R.U. activities in Region III.

2. For assistance, either financial or by a more practical expression, be sought from the N.Z.A.R.T. and J.A.R.L.

3. In the event that either of these two societies is unable to make any contribution, the W.I.A. in conjunction with I.A.R.U. Hq. follows through this policy.

4. The W.I.A. assistance to South-East Asian countries to be the Youth Radio Club Scheme courses.

5. In order to establish initial liaison with I.A.R.U. member societies in the Region, a number of Y.R.C.S. courses be offered to assist the development of Amateur Radio in those countries which are I.A.R.U. members.

6. These I.A.R.U. member countries be encouraged to adopt a neighbouring country—in which no I.A.R.U. society exists—and to assist that country to develop Amateur Radio.

7. In accordance with this policy, Australia adopt Indonesia and attempt to establish an Amateur Radio Service in that country, providing I.A.R.U. courses, help, and advice in a concentrated fashion. It would be hoped that other I.A.R.U. societies could follow this example, the W.I.A. providing Y.R.C.S. courses to assist the more advanced countries to place them in a neighbouring country.

8. W.I.A. Federal Liaison Officer and a member of Federal Executive visit the recipient country as needs determine and finances permit.

9. That prior to any I.T.U. conference of a Regional nature, the member concerns Amateur frequency allocations, I.A.R.U. societies in Region III. liaise and determine a common policy to be adopted.

10. Headquarters of I.A.R.U. and other interested societies be requested to send a senior officer to Sydney Convention in 1968 (Easter) to assist W.I.A. Federal Council in formulating the eventual W.I.A. official policy on these matters.

FEDERAL QSL BUREAU

The following accompanies all QSLs sent out by HK5AOF: "During the course of our lifetime, we keep and preserve documents which remind and show us that in such a year we were born, vaccinated, married, promoted, applauded, received honours and finally retired from active life. This is of great value to us. The QSL card, which the Amateur finds in his mail box or under the door, is a document that a meritorious and valuable work would never be a reality. The active and hard working Amateur who keeps his equipment up to date and makes valuable international contacts is always awaiting the confirmative QSL. The QSL card makes me happy. Will you please co-operate by sending me a QSL card every year and I will likewise be rewarded for your courtesy and consideration."

The Philippine Amateur Radio Association (P.A.R.A.), which is the direct successor to the Philippine Radio Club, founded in 1924 by Col. H. Roberts, KAIHR, well known to DXers is celebrating its 53rd anniversary in November. A variety of celebrations are planned.

Further news from Tubby Vale, VK8NO, at Gove, N.T., reveals he has just returned from a trip south to visit his first grandson, Timothy, the progeny of Jeff VK2ZP. Jeff is living at the home in Glenferrie and currently the VK8NO/ZP sketch is used only to hang out nappies on wet days.

The 1968 QSL Contest notification was received too late for inclusion in "A.R." for November. The phone section was held on Nov. 18 and 19. The c.w. section is scheduled for 0600z, Saturday, Dec. 2, to 0600z, Sunday, Dec. 3. Logs go to Contest Committee, P.O. Box 907, Colombo, Ceylon. Details of rules and awards are contained in this Bureau.

At last the J.A.R.L. have got the message on the new VK QSL Bureau set-up. It now only remains to whip the Box and the Bureau into line and all major bureaux will be covered. Calls fell to 4,500 during October. This Bureau extends its best wishes for Xmas and the coming year to all Amateurs and particularly to the outgoing and inward managers of the Divisional Bureaux.

—Ray Jones, VK3RJ, Manager.

NEW SOUTH WALES COUNCIL NEWS

Council activities have for the most part been confined to the work of the Division. The employment of a Secretary has meant that work in this field which has been unable to be performed due to limited time and facilities

SILENT KEYS

It is with deep regret that we record the passing of the following Amateurs:

VK2BCR (ex VK3CR)—

J. K. (Ken) Ridgway.

VK3DC—Ewen Cameron

VK6DR—Bill Wedemeyer.

can now be completed. It is hoped that soon the result of this work will make the tasks of this and future Councils far easier than that of the past.

Mr. J. H. McCullough has been appointed to bring the Council up to full strength. Although well occupied during the past year, Council will have a busier than usual start in the new year.

Following on the Divisional Convention will be the Federal Convention which will be held in Sydney this year.

The President, Keith Finney, and Councilors wish to extend Christmas Greetings to all members for the forthcoming season, and would like to take this opportunity of thanking all those people for their help and courtesy during the past year and hope in some way that similar efforts have been made by the Councilors are, after all, only fellow members giving up much spare time in an effort to help Amateurs and their hobby.

OCTOBER GENERAL MEETING

The October general meeting was held at Wireless Institute Centre on Friday, 25th Oct., and attendance was very good. The usual format of reading of minutes, etc. During the formal part of the meeting an additional 17 members were accepted and welcomed to the membership ranks. While membership is on the increase the rate of obtaining new members is still far too slow to achieve the large increase in the number of members to realise a bigger and better Institute.

The lecture by Maurice was more of an insight into new present and future developments in the use of electronics in industry. Maurice had some very interesting samples to illustrate his talk, as well as some slides on various topics. Maurice spoke well and was very popular. The meeting was well attended and was restricted by insufficient time to give too many details.

On display was a 5 h.p. petrol engine which had been modified to run on a transistor system. The system used a piezo-electric device which when flexed mechanically by the timing can generate 17 kV. This was used to fire the transistor transistors being necessary. A similar element operated by a spring and release knob made up a gas lighter. As can be expected, these devices brought out questions and in reply Maurice said that the gas lighter should sell for a few dollars. Regarding the ignition device, Maurice said that the maximum switching speed was low and the h.t. fell rather poorly as speed increased, thus spoiling the device. He said that he had a piezo-electric device which had the coil ignition but used a very low saturated coil with a transistor fired primary. The saturation of the core held the output at a low level and the transistor could well handle the high speeds; and although the coil point type ignition system was 30 years old, only recently had electronic been involved in this area. As an example, Maurice said that by pre-magnetising the cores only half the primary turns were required and this alone raised efficiency considerably.

While speaking on cars, Maurice went on to say that the new U.S. made V.W. would have electronic fuel injection controlled from the base of the engine to ensure complete combustion without pollution.

Because of air pollution by combustion engines it was now certain that electric traction was for the future. At this point, graphs were shown of efficiency curves for motors and batteries under various speed and operating conditions. Taking a power source of 700 lb. weight the lead-acid battery could give 8 kWh., the newly developed zinc air cells 4 kWh. as opposed to the petrol engines' 120 kWh. In terms of performance, the petrol engine was still the best.

At present, power sources had a place at the development of new systems of traction were needed to use the limited power available for use.

In this area, G.M. have developed a traction system using thyristors to vary the frequency of supply to synchronous motors by passing the series d.c. motor and its waste starting system. The Japanese Toshiba Co. has developed an experimental d.c. motor without commutator by using hall effect devices to control thyristors (SCR's).

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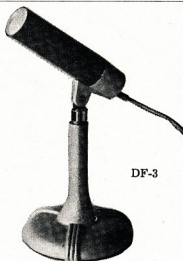
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The point being made by Maurie was that electronics are making tremendous advances in all engineered devices and that these advances in semiconductor technology will help the Amateur in many ways.

Maurie demonstrated some semiconductor products and spoke about the development of silicon diodes. He said that a diode which was put in that of a diode such as OA210 is connected across the coil of an electric petrol pump (in the correct polarity of course) then the contacts in the pump will outlast the life of the car! Maurie said that the automotive manufacturers should include this item in the list of accessories that they should probably didn't know about the idea. However the use of silicon diodes with alternators in cars results in cheap high current diodes for Amateur use.

Continuing, Maurie went on to Integrated Circuits and said that the transition to these devices was more dramatic than the advent of transistors and the introduction of these devices would mean that the electronics man of today must think in this new language and not in the language of valves which have been left behind. The fact being that electronics is entering a new complex and exciting future.

This lecture proved very interesting to all present and difficult to describe in a few lines. The vote of thanks was moved by Dave ZBSJ, who thanked Maurie for this interesting evening and a suitable acclamation by applause was carried.

The meeting was closed at the end of the lecture at 10 p.m., when supper was served and the speaker was thanked. He gave his samples to ask many more questions and look at the goodies which contained, among the many items, a small locally made but authorised tuner for television sets of local manufacture.

The general meeting this month will not have the usual lecture, but will instead be a film evening. The feature film will concern television and is reputed to be a popular and very well produced item. Harold Burfoot assured "A.M." that the film was of good quality, being much better than last year's lot, employing such things as sound and pictures at least one of the best in the field.

Harold has suggested that next year one meeting be given over to an exhibition of home-brew gear to be briefly described by the builder. If you would like to be in it and have a suitable gadget to display and describe, would you contact him.

W.I.C.N.

The W.I.C.N. group of the N.S.W. Division held a 24-hour exercise on 20th and 21st last in conjunction with the Colo Shire Civil Defence exercises. The exercise was held in the Windsor-Kurrajong area, with the control station being at the Wilberforce Council Chambers and mobile stations placed at strategic points at Colo, Weener Creek, Blipin, Bowen Mountain, North Richmond and Clarendon.

Channel A was used for this event and in all cases direct communication was effected and maintained throughout.

ANNUAL DINNER, 1968

The Annual Dinner of the Convention for 1968 will be held at Windsor Gardens, 458 Mowbray Avenue, Sydney, on 15th October, on the North Shore of Sydney for its excellent catering and service, and Council feels confident of a successful evening. The place is well with the choice of this venue. It is used all year round for conferences, etc., requiring good taste and warm and comfortable surroundings. The Council has been well served with generous helpings for all.

DURAL TRANSMITTING STATION

The transmitters recently delivered to Dural have created some interest. A brief description is in order. The transmitters consist of an r.f. unit capable of 500 watts aerial power and a power supply. The power supply is the installation of these transmitters and other equipment at Dural due to the lack of three phase supply, which at present is not available to the Council. The position should soon be rectified.

LECTURE CLASSES FOR A.O.C.F., 1968

Those intending or contemplating to sit for the A.O.C.F. examination should be reminded that the classes at Wireless Institute Centre, Crows Nest, start in early February and early March. The number of places is quite limited. For those unable to attend in person, an excellent correspondence course is available. Enquiries should be directed to the Class Supervisor at W.I.C.

OBITUARY

J. K. RIDGWAY, VK2BCR (ex VK3CR)

We regret to record the death on Tuesday, 11th October, of J. K. (Ken) Ridgway, VK2BCR.

Ken first joined the W.I.A. in July 1941, and was soon engaged in Institute affairs. He was co-opted to the Victorian Division Council in April 1942 and elected Vice-President during the same year. In 1943 he convened a sub-committee to form an Experimental Laboratory and in 1944 joined a committee to organise an Amateur Emergency Network.

Ken was engaged in all these activities, he found time to act as one of the instructors conducting W.I.A. classes for those proposed for joining of the Armed Forces Service as W/T operators. He also constructed a number of audio oscillators which were hired out by the W.I.A. to those wishing to practice the code at home.

In 1942 he joined the staff of "Amateur Radio" as Technical Editor and also gave a great amount of assistance operating the duplicator, co-relating wrapping and addressing.

When licences were re-issued, Ken took out his call sign of VK3CR in January 1946. "Amateur Radio" became a printed magazine again in October 1946. Ken retained his position as Technical Editor until February 1948, when the pressure of business compelled him to resign.

He was one of the partners in the firm of Precision Electronics, Melbourne. When International Resistance Co. bought out Precision Electronics in 1954, he was appointed Chief Electronics Engineer. International Resistance Company moved to Sydney, where he took out the call sign of VK2BCR.

In June 1967 Ken had to resign from business activities due to ill health. Although his health improved slightly, his illness finally caused his death in October.

The W.I.A. extends to his bereaved wife, Jean, and daughter, Christine, deepest sympathy in this sad loss.

Bill Henry's comment summed-up the Institute's feelings when he said, "He was a real white man and one of nature's gentlemen."

BILL WEDEMEYER, VK6DR

It is with regret that we have to report the passing of another of our radio fraternity in the person of Bill Wedemeyer, VK6DR. He died at his home in Melbourne on 10th October, aged 71 years and leaves two children, a son and a daughter of 10.

He was originally a diesel mechanic, but gave that exacting job up and joined the P.M.S. Dept., of which he was on the staff at the time of his death. He got a limited licence about that period of time and obtained his full ticket.

To his wife and family the Institute extends their sympathy in their loss.

HUNTER BRANCH

Outstanding weather and an excellent attendance ensured success for the 15th Oct. The highly salubrious location at Bolton Point was again used (must get in a plug for the old home where it was held) and later than usual, the programme of hunts and other activities commenced. Tony ZCCT had some cunning hide-away for the first one and he fooled them all, for time at least. Then came another event, a time on 40 when Dave ZBSJ, Jan ZBJO and Bruce approached what might be described as a low-lying bush. Using such remote control devices as pieces of string and satellite relay (their explanation, not mine) they put off a powerful signal, which almost defied location. Those with transceivers did some ever decreasing circles at a bit looking for the signal but we, the good old 7 Meters, found it with no difficulty in hearing it. What's 10 keyesays anyway? I

GEORGE GROVES, VK1XL

George Groves passed away on 11th October, 1967, at the age of 86 years, and looking back over the years, not so dire, there are many incidents which can be recalled.

He spent most of his life in Devonport and was quite a brilliant scholar, concluding his education at the High School and entered the employment of the New Zealand Steamship Co. of New Zealand in Devonport.

A great interest in radio developed and around 1920 a number of boys got together to form the Devonport Radio Club under the call sign of VK1DR. The transmitter was a pair of 210s in push pull Hartley circuit, modulated by a pair of 250s in push pull—the results on 220 meters were excellent until the oscillator became unstable and the P.M.C. requested a crystal controlled transmitter. George, with another, came to the fore and re-built the rig into the familiar 47 c.o., 46 buffer and a pair of 48s in the final.

About 1935, George was transferred in his employment to Melbourne where he used the call sign VK3XA, having taken out a licence in Tasmania in 1936 using VK3XZ. He was a keen amateur, using phone and c.w. and managed to make some large scores in the then Pisk Contest. Great interest was also taken in the contest, though working other stations was extremely difficult—no other Hams in that area.

With the years came the Second World War and George, now married, was stationed in Launceston where he still operated VK3XZ. He was a keen amateur and followed and he was in the R.A.A.F. and was stationed for a long time at the Technical College, Melbourne, where his knowledge was of great use, and later spent some time in New Guinea. The subsequent demobilisation followed and George was back in his home town, Devonport, where he transferred back to his home town, Devonport.

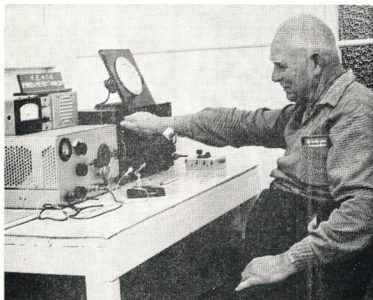
Six metres interested him and during those early years on the very high frequencies, he worked many stations all over Australia, New Zealand and Japan, a first VK1/VK1A came in 1941, and during the war, although interest in radio never waned, during those years he was keenly interested in survival in the air. He was a keen amateur on a number of instruments although he preferred the piano, he conducted his own dance band and was playing all his life.

Those who knew him of late years were familiar with him on the sideband with a Swan 850 and rotary coil. He was a keen amateur in golf occupied many enjoyable hours and it was here, on a golf course, where George went to meet the Great Operator.

can't tell the difference! Anyway, the outcome of all this was a win for Bill ZCZV who beat Les ZBJ by a short head so the binoculars were out.

After lunch it was on again. Notwithstanding the fact that the rules dictated that the aerial should be down, the fact that the aerial was up attracted a good field. My own secret weapon for this one didn't arrive in time as the else I had been unbeatable. Anyway, Les ZBJ beat me a good time, making 13 contacts in the half hour or so. Just as well I didn't give him a quiz paper or he'd have taken it when he was in the air. The quiz was divided into two sections this year with an especially hard bit for the licensees. John had a visitor from St. Albans, and one while Neville Threl's outsmartered them all again in the second division. The ladies were not forgotten either and Mrs. Branton, a close relation of Mrs. ZBJ, knew nearly all the answers. Imagine what sort of a fiend would ask questions about the unit of currency in Afghanistan. Presumably some of them hawks! The poor ladies were most bewildered. Later Mrs. Branton told me that she was having second thoughts about entering the quiz.

One of the best tricks was the one in the last afternoon a most interesting contest developed among the 2 mxb boys when Tony's crew again went a-hiding, but this time with their eyes. They used the caves and the those tricky places to hide the r.f. The result was another win for Les ZBJ who found all three in the time allowed. One of the gear he used was a clearly developed for that occasion and flexible dials and angle gears



Ipswich and District Radio Club's Public Relations Officer, Mr. Bill Jehn, WIA-L4001, in the operating position of the club station VK4IO. Equipment includes BC342 and home-brew three-band s.s.b. transceiver constructed by club member VK4SF. (Photo "The Queensland Times")

Seems hard to believe that I am about the only member of the club who was in the foundation of the club when it originally started. Here is hoping that at least some of the old originals rejoin in the New Year and help the new boys get the club house which we were unable to get in the past. All social chit-chat curtailed this time. So once again, cheers for the Festive Season. 73, Bob 4RW.

IPSWICH AND DISTRICT RADIO CLUB

I would like to wish everyone the Season's Compliments on behalf of all the Ipswich Radio Club members.

The past month was filled with activity for the club and its members. The 21st birthday party for our secretary, Phil 4ZPE, went off without a hitch.

It is with a little sadness we are saying "cheerio" to Marie a.w.l. L4026, as she is leaving to join her OM, 8WD, in New Guinea. Several club members spent a most enjoyable week-end camping out at Wyberba National Park, near Stanthorpe, and the fact that

it rained almost all night did not dampen their enthusiasm. All made an assault on one of the close mountains nearby and the views from the top were most rewarding, however all attempts to contact club members back home on 40 mhz were of no avail.

Our Treasurer, Joan, and her OM, George 4ZLG, are off to ZL land and we wish them a happy holiday. While on the club members who are going away, Col. 4ZMA will be in VK3 for a couple of months in the Wagga Wagga area. He is on 53.03 Mc. and plans to visit Melbourne while away.

The club's 80 mhz net at 8 p.m. on Mondays is to be changed to 20 mhz for a short time, the QRN on 80 mhz is getting a bit thick of a night now; the move to 20 mhz is only temporary until our new 2 mhz net can be operational. The club's new 2 mhz net is on 145.3 Mc. This was decided last meeting, so it seems as if there will be a large order for suitable rocks lodged soon.

The club members are planning to use xtal locked receivers for the net, and the units

are hoped to be both for mobile and home station use. The 2 mhz net of 53.03 Mc. is not to be dropped, but as its use is restricted to non t.w. hours it is hoped the 2 mhz net will be able to be used at all times. The popular fox hunts can now be carried out on 2 mhz and all are looking forward to their starting again.

The Fandfest at Kingsliffe: The club hopes to have a good representation at the Fandfest to be held at Kingsliffe. Some keen members will spend the week-end under canvas, while others will probably take motel accommodation. Merry Christmas and a Happy New Year, 73, Warren 4GT.

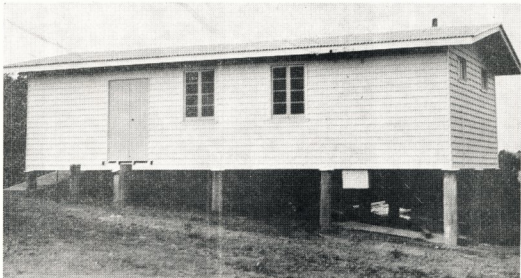
SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division for October was held to an average attendance of members and visitors in the club rooms, and opened right on the dot of 8 p.m. There were no apologies, no interstate or international visitors, and the minutes of the previous meeting were read by Tom 5TL, due to the temporary absence of the usual Minute Secretary. Very little Divisional or Federal business was discussed, although the matter of the electrical and contractors' licensing act was discussed by the Chairman, Murray 5ZQ, the matter of the availability of crystals was explained at length by Gilbert 5GX, who also spoke on the plentiful supply of resistors available to members both at the meeting and by writing in to the disposals committee, with special emphasis on the fact that the interests of country members were being taken care of with plenty to spare, full details of which would be available in the next issue of the journal.

The coming Xmas V.h.f. Group Picnic and Barbecue, two separate events, were announced, and Geoff 5TY gave details of the participation of W.I.C.E.N. members in the recent E.P.S. procession, and thanked members for their interest and enthusiasm for anything in connection with W.I.C.E.N. activities.

At this point, members were asked to stand in silence for one minute in respect for the passing of VK5 Life Member, Professor Sir Kerr Grant, and a suitable expression of sympathy was expressed by the Chairman.

The business side of the meeting now being concluded, 4SL cards were distributed by George 5RX and a smoke-oh was announced, after which the decks were cleared for the main form of entertainment for the night, to wit, a jumble sale, which is the VK5 way of saying, a buy and sell night, and with all the members present eager to give the auctioneer for the night a suitable welcome—not so suitable to the auctioneer—the name of Warwick W. Parsons, SPS—PanSy to you—was announced with all the pomp and splendour, to say nothing of the necessary interjections and coarse remarks, usually associated with such an event. Now there is very little that can be said about such a night that has not been said before, so I will not labour the point. (Hurrah!—Ed.)



The club house of the Ipswich and District Radio Club situated in Deebing St., Ipswich, which was built by club members on land donated to the club by Ipswich City Council. (Photo "The Queensland Times.")

Noticed a real stranger at the meeting, none other than Lionel SLB whose happy and cheerful face has not been seen at a meeting for many months. Not very long ago, but still interested in the hobby, he told me, when I asked him if he was on the air these days, that he was on the air every night. He worked Athol SLQ to say that he would be along to the meeting.

Talking of Athol SLQ, I usually manage a paragraph about him each month, but he is at the moment in my little black book as a possible user of "The Thing".

Had the first month from an unknown, and unexpected, voice who said in honeyed tones that a certain Mr. Pincoff, VK2 JZL, was in the line at the time. I was in VK7 that there were two things that should never be missed if ever passing through Adelaide, to wit, the River Torrens and none other than Pansy. The voice was obviously identified himself as Pierce 2APQ, the VK2 Federal Councillor, who was on his way home via Mount Gambier, and Victoria, from the Upper Murray district.

Realising that Federal Councillors were somewhat rare and august personages, especially in my line, I supplied him with a few suspicious thoughts and invited him and his family to visit my bark but and partake of some brilliant soup and fried snails.

It was when I made my first mistake. No sooner had I met his XYL, daughter and son-in-law, a charming threesome, if I might say so, than the conversation seemed to drift towards "The Thing," and no one but I tried to stifle such tendencies. I was overcome by superior numbers. To make matters worse, after the evening of the 13th, I was dragged out to the car parked in the scrub alongside my QTH and, under the threat of injury, forced to examine what is probably the smallest edition of "The Thing".

Under the dash that I have ever seen, and horror of horrors, even forced to handle it. I had to add to the indignity, before I could even say product detector, or even harmonic oscillator, the said miniature "The Thing" was bodily transported to my shack, connected to electricity, connected to my shame-stricken antenna, and JAs, Ws, ZLs, etc., etc., worked with reckless abandon. I have never been so mortified in my life, whole lot of things could happen to me, and all without as much as by your leave. Anyway, despite their attempt to brainwash me on the merits of "The Thing," I thoroughly enjoyed their short visit and was sorry to see them leave, but I am finding it a little monstrous to have my XYL, daughter and son-in-law, provoked, keep on saying "Why don't you buy one of those things that Pierce showed you, plus the fact that I had the audacity to tell me, without even batting an eyelid, that he had more fun out of Amateur Radio in the bush than he did in all of his previous years, and he regrets not having taken the step a lot earlier. May I be permitted to ring down on certain on such a sordid story before I break down and burst into tears of disappointment at human nature!!

The latest news on Jim Paris—one time Associate members' representative—is that he is slowly on the mend from his heart trouble, but notwithstanding normal care, all will be well. Good news Jim.

George SCV will be looking for my blood. I am sure that he will be able to find it, as he referred to him as being of "Thunderbird" fame, when it should have been "Firebird" fame. Will you forgive me George? I thank you—I thank you!!

Most members of the VK3 Division will have noted with sincere regret the passing of Professor George Grant, VK3 GZL, a long time member, but few are aware that he was a Life Member of the Division, an honour bestowed upon him many years ago for his services to the Division and waiting for the Division to hold the Division at all times. A regular guest speaker at the Xmas sales pre-war, he will always be remembered for his unhesitating and frank of putting very complicated matters in a simple, amusing and charming manner.

The subject of a very warmly humorous and stories on any notable Australian, most of which related to what was supposed to be his excessive professional absent-mindedness, he has a sense of humour and an unerring ability to get close to his often bolder young students. His students took a great delight in his stories. His car, a light blue, air-cooled Franklin—which had travelled a virtual 150,000 trouble-free miles—out of sight round a corner of the Physics building in the University and waiting for the "Prof." to look for it at the front, talking aloud to himself and pretending that he could remember it straight at me. Realizing that work was not, and if he had, where had he parked it!!

On the occasion of the professor's 50th year of age, the University of Adelaide, the daily paper feature writer, Stewart Cock-

burn, wrote: "The University sometimes needs a bridge to span the intellectual chasm between its cloisters and the community at large. For as long as most people can remember, our University has possessed such a bridge in the person of Professor Sir Kerr Grant."

The Division has lost another of its Life Members, and a good friend as well.

What does one do when a friend of long-standing association in Amateur Radio decides to lower the flag of allegiance and turn renegade? The first hint came from one of my spies who sighted a certain gentleman from out Kingswood way boarding the Overland en route to VK3, and returning next day. The second warning came from a source planted in the freight department of a certain airways who informed me that there was a large and heavy parcel awaiting collection by the said certain gentleman from out Kingswood way. The third and final warning came when I resolved a very strong signal on 14 Mc. and from it came the voice of the certain gentleman from Kingswood way—by now certainly no gentleman in my eyes—quacking his way enthusiastically to all and sundry throughout the world, and when I saw the world, I was definitely made the world! Yes, you have guessed it, Cee SEZ has defected, and is enjoying every minute of it!!

I could even say product detector, or even harmonic oscillator, the said miniature "The Thing" was bodily transported to my shack, connected to electricity, connected to my shame-stricken antenna, and JAs, Ws, ZLs, etc., etc., worked with reckless abandon. I have never been so mortified in my life, whole lot of things could happen to me, and all without as much as by your leave. Anyway, despite their attempt to brainwash me on the merits of "The Thing," I thoroughly enjoyed their short visit and was sorry to see them leave, but I am finding it a little monstrous to have my XYL, daughter and son-in-law, provoked, keep on saying "Why don't you buy one of those things that Pierce showed you, plus the fact that I had the audacity to tell me, without even batting an eyelid, that he had more fun out of Amateur Radio in the bush than he did in all of his previous years, and he regrets not having taken the step a lot earlier. May I be permitted to ring down on certain on such a sordid story before I break down and burst into tears of disappointment at human nature!!

ARCH VK5XK/2 IN "LOTUS LAND," ON LORDE HOWE ISLAND. Arch reports having a good restful holiday. So balmey were the days, he was more inclined to chuck his shack and his ham than he was to work. However, several hundred QSOs were made and many European countries worked. Arch also admits to enhancing the euphoric environment of the island by occasional libations from the shrine of Bacchus, i.e. bringing the bar at the local Bowls Club. He describes it as a "Choir Session." (Sounds like a perfect way to top off a day. Nice work; where to next year?)

Putting my pride in my pocket—or what serves these days for a pocket—I decided to ring him and hear the worst, and would you believe it, he had the audacity to tell me, without even batting an eyelid, that he had more fun out of Amateur Radio in the bush than he did in all of his previous years, and he regrets not having taken the step a lot earlier. May I be permitted to ring down on certain on such a sordid story before I break down and burst into tears of disappointment at human nature!!

Have just returned from my short visit to Ballarat, quite unscathed and in my little sight-seeing trip around the area I was impressed with one or two of the beams that stood so proudly in the skyline. At one of these installations I had stopped the car to take a better view, when out of the side of the house appeared a female figure which appeared to be some sort of a space weapon and pointed it straight at me. Realizing that Pincoff (3AFJ) must have tipped them off in Ballarat of my presence, I waited not upon the order of my going, and I told off all of 10 m.p.h. MY XYL said that the lady only had a hose with a sprinkler on the end, but

don't you believe it—I know those VK3s—and I reckon I was lucky to have escaped. What was I thinking of? But I was not my laughter was adjudicating at the annual physics/culture competitions held there, and I felt that she might need some protection from those tough VK3s.

On the way to Ballarat I naturally passed through Nairne, and it goes without saying that I should have missed it. I never dawned on me that it belonged to Ses 5GP until I was well past, otherwise I would have stopped long enough to say that it was a very nice place that the beam was certainly a landmark, but somewhat pugnaciously said "and it works." Cor! SES was mobile on his recent trip to Port Lincoln, and I think that the 80 watt was a decided improvement on the 13 watts of the old one, and judging by the signal that I heard the only way I can definitely agree.

Dave SDS heard on 53.1 Mc, the other night, not from his QTH but from the station of SJQ, whom he was apparently visiting. How did he know it was SDS? Well, there was something about the voice that gave him away—Hoot Mon!!

Our wandering one-man DX expedition, Arch SEZ, has returned to his shack, and I, Lord Howe Island, judging by the number and variety of the calls heard chasing him, especially as he is usually using 85 watt input, am sure that he contacted a VK5 he was quite anxious to know if we had seen any rain, but nobody was able to cheer him up on that score. I received a communication from him by postcard, but do not subscribe to his somewhat uncouth suggestion that writing to me was the only way he would ever connect me from Lord Howe. Why, for all he knows, I might have been calling and calling him, and he never heard me!!

Following the success of Geoff's (5TY) talk to the Black Forest Methodist Men's Fellowship recently he has received an invitation to visit his study at Claxton, in the near future. This is quite good publicity for W.I.C.E.N., and a few eyebrows were raised at this first talk when he explained just what was being done by a bunch of club members in their own time, and at their own expense, to try and help should the occasion ever arise.

Noticed that the new call sign books were going off like hot cakes at the meeting, and once again the reaction of the buyers was more than favourable. I wonder just how many of the buyers are going to use them, how much work and time goes into this excellent production, all voluntary at that. It is against my principles to hand out bouquets to anyone, but those concerned deserve a pat on the back for their efforts in this direction, even if I have to include Pincoff (3AFJ) in these sentiments, but he might say "No!"

Due to a mix-up, the reason not disclosed, a recent edition of the VK3 W.I.A. notes in the local paper appeared under the heading of "Prices for vegetables," much to the delight of my fans and my natural discomfiture. Don't bother to ring or write me regarding the prevailing price of raspberries, everybody else has heard that.

Arthur SHY rang me this week to let me know when was the best time for me to bring my grandson out to his QTH next month to have a better view through the clouds of celestial beings. During the conversation he told me that recently he had a bunch of young men, who were his visitors, and his wife, and after the viewing was finished they brought up the question of Amateur Radio, and the result was that Arthur packed the 35 or so visitors inside his shack, and the cause of contact Heard Island, with the chaplain at the island giving the youngsters a run down on the life and habits of the island, and much to the youngsters' delight. I understand that the walls of the shack still show a slight oval bulge.

A rather nasty rumour has just reached me that Jim SFO has joined the renegades and has been quack-quacking all over the place. With all these desertions from the cause, Comp SEF will have to get himself a bigger black book to write the members of his poultry farm and to tell you know, you know, with your little black book, Compo, do you?

Well, here we are again, the Festive Season is upon us, and naturally on behalf of the Council and members of the VK3 Division I extend to all the other Divisions and members the Compliments of the Season and all that goes with it. To the users of "The Thing," may I say that I am sure that you will have three weeks, this is your most dangerous time, many a quack has stopped suddenly around the 14th of this month. Anyway, who should I be to ruin the fun by telling you about burning the hatchet!! 73, de SPS—Pansy to you!

WESTERN AUSTRALIA

CQ, CQ, gather round mob, and let us see if we can rattle your speaker cone. Firstly, let's count noses and see just who is present and who is A.W.L. There has been so much East-West traffic lately that it's hard to keep accurate records of all the comings and goings. I do know however that among the inwards traffic over the last few months there have been some very well known personalities—Dudley 2DQ, Arie 2A7A, Lew 3LW, Reg 2KL. This is where I start running into trouble because there are many others of whom I have made no mention—excuse please?

Bill 6WY has been doing sterling work extending hospitality to various visitors and it was at Bill's QTR that I had the pleasure of an eyeball with Jan Andersen, LASTY/MM, who was in port for a few days. This call sign must surely have raised a few eyebrows when heard on 8 m, particularly in view of the recent JA activity. Not many logs can boast LAS among their pages. I understand that Graham 6ZZZ is going to frame that particular page.

It did these tired old optics a heap of good to see the walls of the Chemistry Lecture Theatre start to bulge under the strain of the huge attendance at the October meeting. If anyone had told me about it I would have been inclined to give them the fishy stare—but seeing is believing. Seating accommodation was taxed to the limit, in fact quite a number of late-comers had to acquire chairs from other rooms. Of course they replaced them afterwards! At the moment, the reason for the record turnout is still undetermined, perhaps the ever popular tank, which followed had something to do with it.

No further information to hand at the moment concerning the Zone 29 Award, but keep watching this page, as they say in the newspapers.

And talking of newspapers, which we weren't, but we will, did you see the illustration and write up about Wally 6AG in the local? Quite a photogenic old gentleman if I may say so.

John 6ZFD has again turned his back on the glittering illuminations of the city and

clutching such vital travelling equipment as toothbrush and 8 m mobile gear, has made off into the gathering twilight. John will be operating from some obscure location, as Hayden way, so keep an ear to the ground for him.

According to John 6ZW, signals he has been receiving from the East have been so strong lately that his garden shrubs have taken on a decided tilt to the West. What do you think?

Sounds as though John 6NJ is preparing for bigger and better DXing from Binnu, one of my spies reports the secure location and John has been putting out a very healthy signal on 40 m.

It's not very often that a Ham will openly admit to "twining the lead". Not so Bob 6RG, but it's not as bad as it sounds because the aforementioned action was all in a good cause. The result was a max antenna, carefully oriented to favour the Eastern States. The new wire plus a new v.f.o. has enabled him to fire up on 40, but black and alas, where are all the other stations?

What did you think of the interference tapes which were re-played on the new broadcasts recently? Good? OK? (VKGZL) who indicate an admiration for the equipment and methods used to analyse and identify the interference. It is interesting to see the Report Forms when the tapes are analysed. It is hoped that some effective means will be found to remove the interlopers—too sweet.

Haven't heard much of Ian 6CX since his return from overseas, but I suspect he is putting in a bit of extra time trying to catch up with Pat 6PUB, Aub 6VCY and Carl 6CW in their quest for the DXCC. Right feller?

VKGVK will be Vile's new call sign when he commences to shake the snow out of his gloves.

Incidentally, Vic's departure from this Division left a vacancy in the ranks of Council which has been filled by "CKC" (VKGZL), who will no doubt make available his vast experience to the mutual benefit of all concerned. Thanks for stepping into the breach OM. Heartiest congratulations to VKC Division for their concerted effort in winning the R.D. Contest this year. A word of commendation also for the runners-up, who came so close, ace of carrying off the trophy. Well done also—but look out, we'll be trying harder than ever next time.

Well, that just about winds it up for now, all that remains is for me to offer sincere good wishes for the festive season from our Division to your Division.

A Merry Xmas and a Happy New Year. T3, Ross 6DA.

HAMMAS

Minimum 50c for thirty words.
Extra words, 2c each.

Advertisements under this heading will be accepted only from Amateurs and S.w.'s. The Publishers reserve the right to reject any advertising which, in their opinion, is of a commercial nature. Copy must be received at P.O. Box 36, East Melbourne, Vic., 3002, by 5th of the month and remittance must accompany the advertisement.

ANY offers for gear advertised last month? Alf Chandler, VK3CL, Phone 50-2536 (Melb.).

COLLINS TCS-6 Transmitter and Receiver and Speaker, with 230V. a.c. power supply Type S, connecting cables and handbook, \$60.00 the lot. O'Brien, San Remo, Vic. Phone 107.

FOR EXCHANGE: Will swap 6 and 2 metre gear for equiv. in photographic equip., particularly enlarger. T. Higgins, VK2JH, 24 Stapley Cres., Chadstone, Vic. Phone 56-3428.

FOR SALE: Altimeter "Kollman," guaranteed accurate, ideal for survey purposes or v.h.f. field work. \$39. Also Bendix Freq. Meter and Calibration Book, \$29. VK3ACK, Phone 50-9168 (Melb.).

FOR SALE: Galaxy V. Transceiver plus Galaxy Callibrator, with a.c. power supply, Edystone speaker, Morse microphone, p.t.t., 1000 Hz. tone generator, including finals, in excellent condition, \$450. VK3UG Tri-Band Beam with tuning unit, prop. pitch motor, selenia indicator, power supply and cables, and 40 ft. self-supporting tower, reasonable offer. Bill Clowes, VK6RX, 4 Nicholson Rd., Subiaco, W.A., 6008.

FOR SALE: Galsco G209 Receiver, O Multiplier Of-1, pre-selector, 180 metre converter, \$300. Wanted: Cabinet for 1st in, Precedent V.I. Wm. F. Sievers, 132 Orong Rd., Torok, Vic., 3142. Phone 24-4154.

FOR SALE: Heathkit MT-1 80-40-20-15-10 a.m./c.w. Transmitter, 90 watts c.w., 35 watts a.m., complete with Heathkit HP20 a.c. power supply and speakers, In-built 120. c.w. power amplifier, VK4J, 27 Oxley St., Edge Hill, Edm., 4870. Phone 53-2068.

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FOR SALE: Transmitter, Heathkit Apache, with SB-10 s.b. adaptor, mike, \$200. VK5SD, 2 Claring Boulevard, Christies Beach, S.A.

FOR SALE: V.h.f. Transceiver, Heath HW20, 144 148 Mc. v.f.o. plus 4 switched xtal positions, sens. less than 1/2 mV., OQ09/12 final, c.w. and pulse, In-built 120. c.w. power supply for mains use, instruction manual, will consider terms, \$190. VK3AKO, Phone 50-9168 (Melb.).

FOR SALE: (1) AWA-382 Receiver, 200 Kc. to 30 Mc. complete with built-in 240V. a.c. power supply and S meter; good condition, \$35. (2) 3 k.v.a. 240V. 50 cycles Petrol Driven Alternator, complete with 120. c.w. power supply, 4-cylinder engine and control box; all on wheeled trolley; f.b. condition, \$200 or near offer. Hepburn, 4 Elizabeth St., East Brighton, Vic., 3187, Tel. 96-2444 evenings.

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SELL: Channel Master TV Aerial Rotator and Direction Control Unit. Ideal for v.h.f. beams. Little used. \$25. E. Hohmann, VK4ZKH, 19 Bruce St., Toowoomba, Qld., 4350.

SELL: One Pye Base, low band, less xtal, good condition. Also a Contact Telephone converted to 120. c.w. power supply. No repairs or alterations offered. VK3UT, Private Bag 40, Warrnambool, Vic.

SELL: Z Match Antenna Coupler, 80-10 Mc. \$20. Heathkit SWR Bridge \$20. 522 Tlx with a.c. p.s. complete with bias supply, \$32. Large Edystone Tlx Dial in prof. black crackle cabinet, has temp. comp. v.f.o. coil, etc., \$25. 10 m. wide spread beam, 1 1/2 to 1 3/4 in. diam. elements, all aluminium including 21 ft. boom, \$44. Dow Key Antenna Changeover Relay, 110V. a.c., 110. 220V./110V. 300W. Auto Trans., \$5. 6 m. home-brew Low Pass Filter, \$4. 300 Vavo Electronic Testmeter (v.t.v.m. and multimeter). Model 4, as new, \$55. 1x or 2x. Cabinet, 1 large meter, 1 large meter and chassis, \$4. 2 only Multimeters, \$3 pair. Valve or Circuit Tester, \$15. Assort. R.H.s. and A.H.s. \$3 Mc. coil, etc., \$27. 2 only 12AX7, 2 only 12AT7 and 1 only 6DQ5, new, \$6 lot. S.b.s. balanced armature Microphone, \$8. S.b.s. balanced armature Mic. inserts, \$2.50. Phone 848-3109 (Melb.).

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WANTED: Disposals Mic. Trans., type 10K/245 or 10K/246. Good price for any quantity. O'Brien, San Remo, Vic.

WANTED: Geloso Front-End Unit 2620A, less valves, relay, a.s. and b.s. in good condition. Colin King, 35 Louisa St., Gympie, Qld., 4570.

WANTED: Good, commercial, Tri-Band Beam. Details and price to VK5ZE, 20 Blencowe St., Elizabeth Grove, S.A.

WANTED: Manual for AT5-AR8. W. Jennings, phone 93-6062 (Melb.).

WANTED TO BUY: Pre-1922 Radio Sets and parts, especially bright emitter and early Tx valves, new, tubeless x.t.s. Also magazines (not Listener In) and A.R.R.L. Handbooks, pre-1934. F. K. McTaggart, 100-102, Ryeburne Ave., Hawthorn East, Vic., Phone 82-1141.

PRESENTATION TO JIM RUMBLE, VK6RU

The presentation was made at the October 1967 meeting of the Wireless Institute of Australia, VK6 Branch, for 21 years' service as QSL Manager of the State. Jim is shown receiving the token from Roy, the president of the VK6 Branch. The token took the form of Jim's own QSL card done in silver and mounted on a stand with words of appreciation on a small silver plate mounted above.

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INDEX TO VOLUME 35-1967

ANTENNAE

A "Corner" Antenna for 7 Mc.	Apr. p.7
An All-Band Curtain Array ..	May p.13
A Parabolic Antenna ..	Jun. p.9
Inflatable Radio Antenna Mast used in Vietnam ..	Jun. p.17
Long Quads for 144, 432, 1296 Mc.	Jun. p.7
Rhombics and Chaos ..	Dec. p.11
"Supergain" Antenna ..	Apr. p.6
Technical Correspondence: Series Phased Array for 14 Mc.	Jan. p.19

BOOK REVIEWS

How to Build an Inexpensive Transistor Radio ..	Jul. p.18
Radio Amateur's Handbook ..	Jul. p.18
The Radio Amateur's Oper- ating Manual ..	May p.13
"The World of Mr. Sheraton" ..	Dec. p.8
"World at Their Finger-Tips" ..	Dec. p.8
World Radio T.V. Handbook ..	Jul. p.18

CONTEST RULES AND RESULTS

John Moyle National Field Day Contest:	
1967 Results ..	Jun. p.21
Errata ..	Jul. p.17
1968 Rules ..	Dec. p.15
Remembrance Day Contest:	
1967 Rules ..	Jun. p.16
1967 Results ..	Nov. p.18
Ross Hull Memorial Contest:	
1966-67 Results ..	May p.15
1967-68 Rules ..	Oct. p.11
VK-ZL-Oceania DX Contest:	
1966 Results ..	May p.14
1967 Rules ..	Aug. p.11
1966 "CQ" W.W. Contest, VK Results ..	Aug. p.19

INSTRUMENTS

Conversion of Crystal Cali- brator No. 10 ..	Jul. p.3
Simple Two-Tone Test Gen- erator ..	Sep. p.6
The Impedance Meter ..	Mar. p.7
The Varimatcher ..	Feb. p.7

MISCELLANEOUS

Amateur Licences in U.K.	Aug. p.18
A.R.R.L. Tech. Merit Award ..	Dec. p.17
Australia's First Orbiting Sat- ellite ..	Aug. p.3
Australian D.X.C.C. Countries List ..	Jan. p.14
Australian DX Century Club Award ..	Jan. p.13
Australian V.h.f. Century Club Award ..	Jan. p.13
A VK2 in W-Land ..	Apr. p.15
Awards for Technical Articles ..	Apr. p.23
Camp Technology, 1967 ..	Apr. p.16
Changes for Mobile Radio Telephone Services ..	Sep. p.20
Correspondence re Federal Comment "On Growing Up" ..	Jan. p.21
Do You QSL? ..	Jan. p.12
God's Gift to the Ham: The XYL ..	May p.9
Handicapped Inc.	Aug. p.13
Hints and Kinks: In-built Batteries ..	Sep. p.11
Intruder Watch Service ..	Oct. p.24
Light Wave DX? ..	Apr. p.15
More YO Awards ..	Jan. p.11

Of Jamborees and Cubs and Us Our Hobby opens the Door to Happiness ..	Oct. p.9
Position of Planets Linked to Solar Flare Prediction ..	Oct. p.17
Project Australis Newsletter Radio Messages are Secret ..	May p.21
Some Observations on Ama- teur Radio in Britain and Canada in comparison with Australia ..	Mar. p.19
What is an Amateur? ..	Mar. p.20
W.I.A. Federal President's Report ..	May p.19
W.I.A. Federal President's Speech, Convention Dinner W.I.A. 50 Mc. W.A.S.	May p.18
W.I.C.E.N. in Tasmania during the Bush Fire Disaster ..	Feb. p.20
Wireless Institute of Australia: Its Administration ..	Apr. p.2
Worked All Vic. National Parks Award ..	Mar. p.13
Worked From All Vic. National Parks Award ..	Dec. p.17
World Association of Metho- dist Radio Amateurs and Clubs ..	Dec. p.17
10th Jamboree-on-the-Air ..	Sep. p.10
1967 R.D. Broadcast by Hon. Allen Fairhall, M.P., Min- ister for Defence ..	Jul. p.4

POWER SUPPLIES

An A.C. Supply for 122 Set A Synthetic Battery for Your Carphone— Part One ..	May p.10
Part Two ..	Feb. p.3
The Vibrator Eliminator ..	Apr. p.5
Transisted Regulated Pow- er Supply ..	May p.2
Variable Loads for Power Supply Tests ..	Oct. p.3

RECEIVERS

A Transistorised Two-Metre Converter ..	Feb. p.5
A Transistorised 80 Metre Receiver ..	Jun. p.5
Further Ideas ..	Mar. p.8
Converting A.W.A. Low-Band Carphones for 6 Metres ..	Jun. p.11
Getting Started on 6 ..	Dec. p.3
Modifications to B28/CR100 Receivers ..	Jun. p.12
Modified "Q" Multiplier in HE80 Receiver ..	Oct. p.5
Overtone Operation of Quartz Crystals: Part One ..	Oct. p.10
Part Two ..	Mar. p.2
Simple and Effective Noise Limiter ..	May p.5
Simple Silicon A.C. Circuit ..	Oct. p.10
Simple Squelch Circuit ..	Sep. p.5
Six and Two Cross-Band Duplex Mobile ..	Jan. p.12
Solid State H.F. Converters ..	Nov. p.12
The VK3ABF Six-Metre Con- verter ..	Sep. p.3
The VK3 V.h.f. Group 6-Metre Converter ..	Jun. p.3
Errata ..	Nov. p.5
Transistorised B.f.o.	Dec. p.20
Tuneable I.f. for Converters ..	Apr. p.12
Two-Metre Transistorised Converter ..	Aug. p.12

SIDEBAND

A Field-Effect Valve ..	Apr. p.13
Another U.K. Transceiver ..	Apr. p.13
A Printed Circuit Transistor- ised S.s.b. Generator ..	Dec. p.9
A Straight S.s.b. Exciter ..	Jul. p.13
Built-in V.f.o.s and Heat Cathode Tuning and Matching Circuits ..	Jul. p.13
Choice of Tubes ..	Mar. p.21
Clipper-Type Compressors ..	Mar. p.21
Field-Effect Transistors ..	Jun. p.19
Four-Tube Linear Amplifiers ..	Apr. p.13
Grounded Grid Input Circuits ..	Sep. p.13
Grounding Those Grids ..	Mar. p.21
Heater/Cathode Emission ..	Sep. p.13
"How can I get on Sideband?" ..	Apr. p.7
Improvements to Swan 240 Transceiver ..	Oct. p.7
More Transistor Sideband ..	Nov. p.15
Several Common Questions ..	Dec. p.5
Sideband on an Old Receiver ..	Oct. p.7
Single Sideband on V.h.f.	Nov. p.11
S.s.b. on V.h.f.	Mar. p.10
The Coupled Tuned Circuit R.f. Phase Shift Network ..	Sep. p.13
"The Thing"—Transistorised: Part Two ..	Apr. p.9
Part Three ..	Jul. p.5
Part Four ..	Aug. p.7
Transistorised Sideband ..	Feb. p.11
Transistor Sideband—Increase Your Talk Power ..	Sep. p.11
Variations on Cathode Drive ..	Mar. p.22
Which Exciter to Build? ..	Oct. p.7
Why Not Double Sideband? ..	Jan. p.17
5 Watts S.s.b.—Home-brew without Hangover ..	Jan. p.9

TECHNICAL MISCELLANEOUS

Fairchild Announces First Aust.-made Zener Diodes ..	Jan. p.21
Field Effect Transistors ..	Nov. p.17
Propagation of Amateur Sig- nals allied with Ionospheric Predictions ..	Jan. p.2
Errata ..	Feb. p.24
Modification of BM3 Mike for Switch-to-Talk Operation ..	Dec. p.8
RTTY the Easy Way—or— Driftitis Controlled ..	Nov. p.8
Technical Correspondence: PADI50 Transistors ..	Jan. p.19

TRANSMITTERS

Converting A.W.A. Low-Band Carphones for 6 Metres ..	Dec. p.3
Getting Started on 6 ..	Jun. p.12
List of Articles on Transistor Transmitters ..	Apr. p.17
Overtone Operation of Quartz Crystals: Part One ..	Mar. p.2
Part Two ..	May p.5
Six and Two Cross-Band Duplex Mobile ..	Nov. p.12
Technical Correspondence: Articles on Transistor Tx's ..	Apr. p.16
Transistor R.f. Power Amp ..	Sep. p.14
Transistor Amplifier Design: Part Four ..	Jul. p.9
Part Five ..	Aug. p.5
Transistorised 2-Metre F.M. Transmitter ..	Dec. p.13

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